ORDER NO.ODSD000410C3

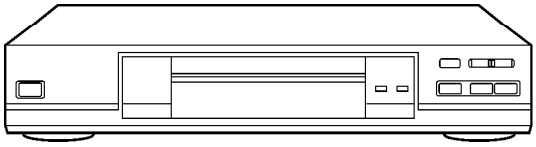
Service Manual

DVD Player

DVD-RV40

Area

A.....Oceania.



SPECIFICATIONS

SPECIFICATIONS

ITEM	SPECIFICATION	ITEM	SPECIFICATION
Power Source	AC 220 240V, 50/60Hz	Video Output	Output level: 1 Vp-p (75 Ω) Output connector: Pin jack (2 systems)
Power Consumption	14 W (approx. 4.0 W in STANDBY mode)		
Signal System	PAL 625/50, PAL 525/60, NTSC	Component Video Output	Y output level: 1 Vp-p(75 Ω), green P_B output level: 0.7 Vp-p(75 Ω), blue P_R output level: 0.7 Vp-p(75 Ω), red Output connector: Pin jack
Disc Formats Supported	DVD, video CD, audio CD		
Weight	2.9 kg	Audio Output	Output level: 2 Vrms (1 kHz, 0 dB) Output connector: Pin jack Mixed output (L/R): 1 system 5.1ch discrete output: 1 system
Dimensions (W × D × H)	430 × 273 × 82 mm (excluding protrusions)		
Operating Temperature Range	+5˚C to +35˚C	Audio Signal Output Characteristics	(1) Frequency response: [DVD linear audio] 48 kHz sampling; 4 Hz to 22 kHz 96 kHz sampling; 4 Hz to 44 kHz [CD audio] 4 Hz to 20 kHz (EIAJ) (2) S/N ratio: [CD audio] 115 dB (EIAJ) (3) Dynamic range: [DVD linear audio] 102 dB [CD audio] 98dB (EIAJ) (4) Total harmonic distortion: [CD audio] 0.0025 % (EIAJ)
Operating Humidity Range	5 % to 90 % (no condensation)		
Discs Played	(1) DVD-video disc 12 cm single-sided, single-layer 12 cm single-sided, double-layer 12 cm double-sided,double-layer (one layer per side) 8 cm single-sided, single-layer 8 cm single-sided, double-layer 8 cm double-sided,double-layer (one layer per side) (2) Compact disc (CD-DA, video CD) 12 cm disc 8 cm disc		
		Digital Audio Output	Optical digital output: Optical connector Coaxial audio output: Pin jack
S-Video Output (Separate YC Signal Output)	Y output level: 1 Vp-p (75 Ω) C output level: NTSC: 0.286 Vp-p (75 Ω) PAL: 0.300 Vp-p (75 Ω) Output connector: S terminal (1 system)	Pickup	Wave length: 665 nm Laser power: CLASS 2
		Region Number	Region No. 4

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. SAFETY PRECAUTIONS

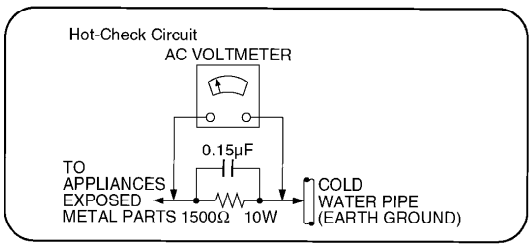
1.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ. / When the exposed metal does not have a return path to the chassis, the reading must be ∞.

Figure 1



1.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.

2. **Connect a 1.5k Ω , 10 watts resistor, in parallel with a 0.15 μ F capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.**
3. **Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.**
4. **Check each exposed metallic part, and measure the voltage at each point.**
5. **Reverse the AC plug in the AC outlet and repeat each of the above measurements.**
6. **The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.**

2. PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. **Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.**
2. **After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.**
3. **Use only a grounded-tip soldering iron to solder or unsolder ES**

devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3. PRECAUTION OF LASER DIODE

Caution

This unit utilizes a class I laser. Invisible laser radiation is emitted from the optical pickup lens when the unit is turned on:

1. Do not look directly into the pickup lens.
2. Do not use optical instruments to look at the pickup lens.
3. Do not adjust the preset variable resistor on the optical pickup.

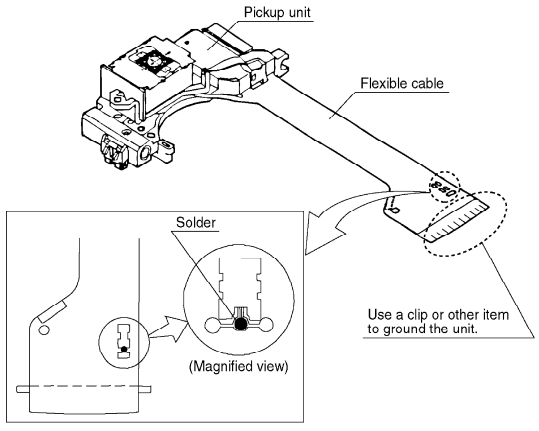
4. Do not disassemble the optical pickup unit.
5. If the optical pickup is replaced, use the manufactures specified replacement pickup only.
6. Use of control or adjustment or performance of procedures other than those specified herin may result in hazardous radiation exposure.

4. HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the optical pickup may break down due to potential difference caused by static electricity of clothes or human body.
So be careful of electrostatic break down during repair of the optical pickup.

4.1. Handling of optical pickup

1. Do not subject the optical pickup to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FPC Board). / When removing or connecting the short pin, finish the job in as short times as possible.
3. Be careful not to apply excessive stress to the flexible board (FPC Board).
4. Do not turn the variable resistor (Laser power adjustment).



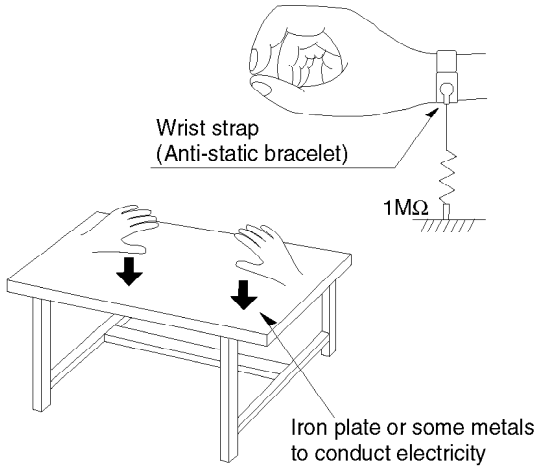
4.2. Grounding for electrostatic breakdown prevention

1. Human body grounding / Use the antistatic wrist strap to discharge the static electricity from your body.
2. Work table grounding / Put a conductive material (sheet) or steel

sheet on the area where the optical pickup is placed and ground the sheet.

Caution

The static electricity of your clothes will not be grounded through the wrist strap. So take care not to let your clothes touch the optical pickup.



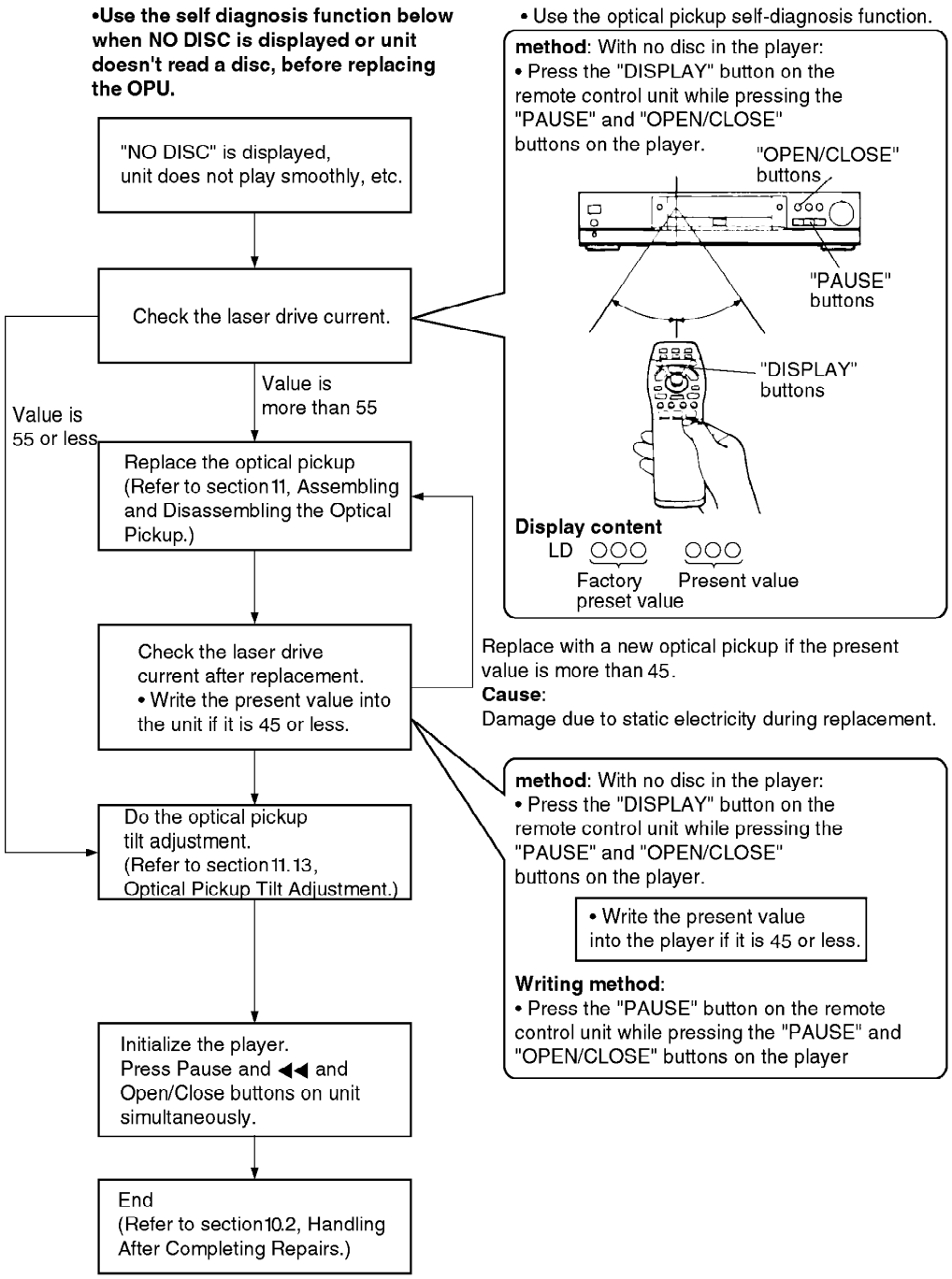
5. Optical Pickup Self-Diagnosis and Replacement Procedure

The optical pickup self-diagnosis function and tilt adjustment check function have been newly added to this player. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment.

Be sure to use the self-diagnosis function before replacing the optical pickup when "NO DISC" is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than 55.

Note

Press the power button to turn on the power, and check the value before the unit warms up (within three minutes).


•Use the self diagnosis function below when NO DISC is displayed or unit doesn't read a disc, before replacing the OPU.
"NO DISC" is displayed, unit does not play smoothly, etc.
Check the laser drive current.
Value is more than 55
Value is 55 or less
Replace the optical pickup (Refer to section 11, Assembling and Disassembling the Optical Pickup.)
Check the laser drive current after replacement.
• Write the present value into the unit if it is 45 or less.
Do the optical pickup tilt adjustment. (Refer to section 11.13, Optical Pickup Tilt Adjustment.)
Initialize the player. Press Pause and ◀◀ and Open/Close buttons on unit simultaneously.
End (Refer to section 10.2, Handling After Completing Repairs.)
• Use the optical pickup self-diagnosis function.
method: With no disc in the player:
• Press the "DISPLAY" button on the remote control unit while pressing the "PAUSE" and "OPEN/CLOSE" buttons on the player.
"OPEN/CLOSE" buttons
"PAUSE" buttons
"DISPLAY" buttons
Display content
LD
Factory preset value
Present value
Replace with a new optical pickup if the present value is more than 45.
Cause:
Damage due to static electricity during replacement.
method: With no disc in the player:
• Press the "DISPLAY" button on the remote control unit while pressing the "PAUSE" and "OPEN/CLOSE" buttons on the player.
• Write the present value into the player if it is 45 or less.
Writing method:
• Press the "PAUSE" button on the remote control unit while pressing the "PAUSE" and "OPEN/CLOSE" buttons on the player

6. Self-Diagnosis Function and Service Modes

6.1. Service Mode Table

The service modes can be activated by pressing various button combinations on the player and remote control unit.

Player buttons	Remote control unit buttons	Application	Not
PAUSE + OPEN/CLOSE	0	Displaying the UHF display F_ _ _	Refer to se 6.2, Self-Diagnosis I (UHF Display).
	5	Jitter check, Tilt adjustment *Display shows JITXXX * * * The 3 digit number (JITXXX) indicates the Jitter rate (JIT088=8.8%) The 3 digit number * * * the right of JITXXX displays an error counter (increases as errors occur) but does not necessarily mean picture/ playback problems will occur. (This number is not as important as the JITXXX) Refer to section 11.13 for Optical Pickup Tilt Adjustment Procedure	Refer to se 11.13, Optical Pic Adjustmen
	6	Checking the region numbers and broadcast system	
	7	Checking the program version	Check the I FLASH RO program.
	9	Lighting Confirmation Function of Display Tube	
	DISPLAY	Checking the laser drive current	Refer to se Optical Pic Self-Diagn Replaceme
	PAUSE	Writing the laser drive current value after replacing the optical pickup (do not use for anything other than optical pickup replacement)	Procedure.
PAUSE SKIP/ SEARCH<< OPEN/CLOSE		Initializing the DVD player (restoring factory preset settings) / *Use when replaceing a microprocessor, microprocessor peripheral parts, or C.B.A.	Refer to se 10.1, Initial DVD Player

6.2. Self-Diagnosis Function (UHF Display)

This unit incorporates a convenient self-diagnosis function for use in troubleshooting.

Display method	Display	Diagnosis	Checkpoints
Service numbers displayed / during use	CHECK THE DISC	Focus error	IC2001,IC2511,IC5201,p
	H01	Tray loading error	IC2001, IC2511, loading
	H02	Spindle servo error	Spindle motor, IC2501,
	H03	Traverse error	Stepping motor, IC2511
	H04	Tracking servo error	IC2001, IC2501, IC5201, disc
	H05	Seek error	Stepping motor, IC2511
	H06	Power supply error	IC1125, IC1151, IC6001
Press the "0" button on the remote control unit while pressing the "PAUSE" and "OPEN/ CLOSE" button on the player.	F0**	Disc format error	If this type of error occ refer to section 6.3, Exa of Repairs Using Error
	F1**	Disc code error	
	F2**	Decoder LSI error	
	F3**	SDRAM error	
	F4**	IIC BUS error	
	F5**	DSC	
	F6**	ECC error	
	F7**	Microprocessor error	
	F8**	Microprocessor error	

6.3. Examples of Repairs Using Error Codes

Refer to this section when carrying out repairs.

Error display	Malfunction example
F0**	Disc, IC7001
F103	Disc, IC7001
F4FF	IC6001
F500	Optical pickup, IC2001, IC5201, IC2511, IC2501
F501	IC2001, IC6201
F502	IC2501, IC2511, IC2001, IC5201
F504	IC5201, IC2001
F505	Disc, IC2501, IC2511, IC5201, IC2001
F506	Disc, Optical pickup, IC2001
F600	Disc, IC7001, IC5201, IC2001
F601	Disc, IC7001
F602	Disc, IC5201, IC2001
F603	Disc, IC5201, IC2001
F610	IC7001
F611	IC7001, IC5201, IC2001
F612	IC7001, IC5201, IC2001
F620	Laser drive circuit
F621	Laser drive circuit
F700	IC6201
F701	IC6201
F702	IC6201
F880	IC6201
F890	IC6201
F891	IC6201
F8A0	IC6201
F893	IC6302
F894	IC6303

6.4. Sales Demonstration Lock Function

This function prevents discs from being lost when the unit is used for sales demonstrations, by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

6.4.1. Setting Method

The sales demonstration lock function is set by simultaneously pressing the "POWER" button of DVD Player on the remote control unit and the "STOP" button on the main unit. ("LOCKED" is displayed when the lock function is engaged.)

6.4.2. Release Method

The function can be released using the same procedure as for setting. If the remote control unit is not at hand, the function can be released by using the same method as for player initialization (pressing the "PAUSE," "SKIP/SEARCH<<" and "OPEN/CLOSE" buttons simultaneously).

7. Service Tools and Equipment

7.1. Service Tools and Equipment Table

Application	Name	Number
General	DVD test disc	DVDT-S15 or DVDT-S01
Tilt adjustment	Hex wrench	JGS0100
	Adjustment table	VFK0539
Inspection	Extension cable (power supply C.B.A. to mother C.B.A.)	JGS0099
	Extension cable (mechanism loading C.B.A. to mother C.B.A.)	VUC8027
	Extension cables (module C.B.A. to mother C.B.A.)	JGS0116
Others	Screw lock	RZZ0L01
	Grease	JGS0091
		JGS0092
	Lubricant	JZS0648
	Grease	JGS0101
Confirmation	CD test disc	SZZP1054C
	VCD test disc	PVCD_K06
Electrical adjustment	Oscilloscope	
	Probe	
	AV cable	VJA0658
	TV monitor	
General	General tools (Screw driver. etc)	
Static electricity countermeasures	Soldering iron (with ESD countermeasure)	
	Anti-static wrist strap	
	Conductive material (conductive sheet)	

7.2. Storing and Handling Test Discs

- Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.

1. **Do not place discs directly onto the workbench, etc., after use.**
2. **Handle discs carefully in order to maintain their flatness. / Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.**
3. **Accurate adjustment will not be possible if the disc is warped from being placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.**
4. **If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.**

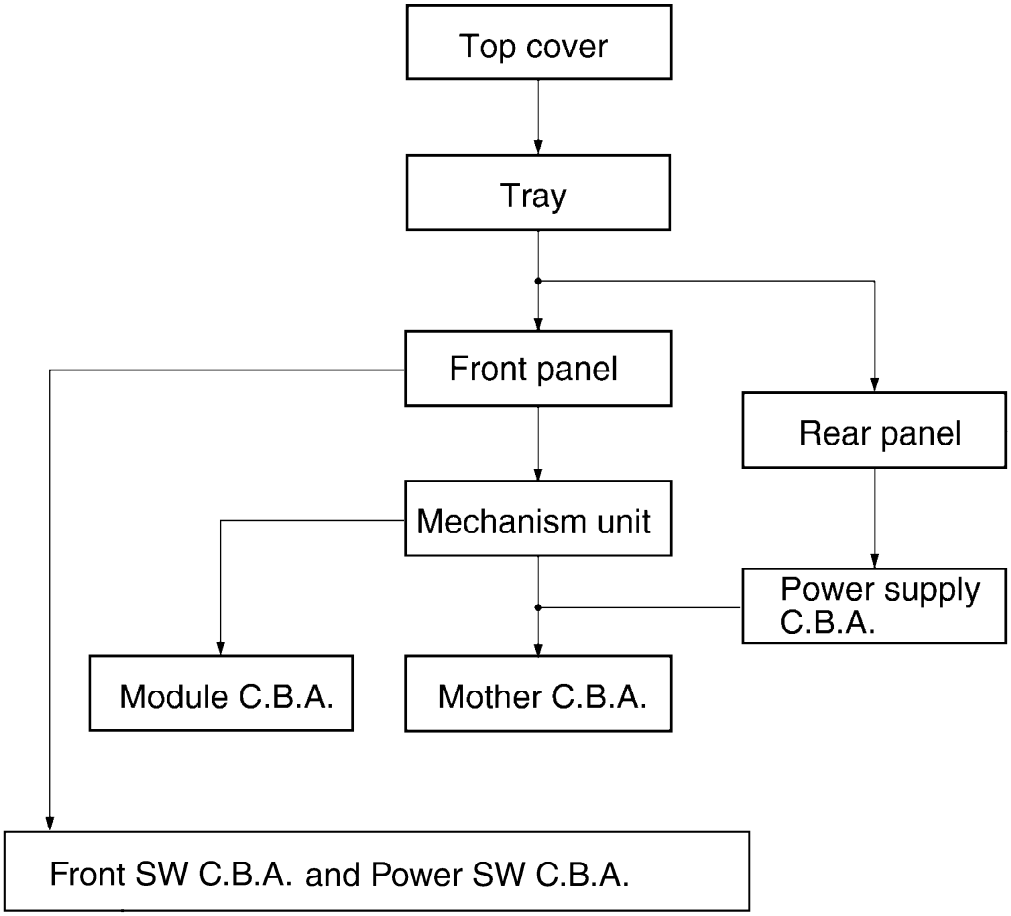
8. General Description

8.1. Operating Instructions

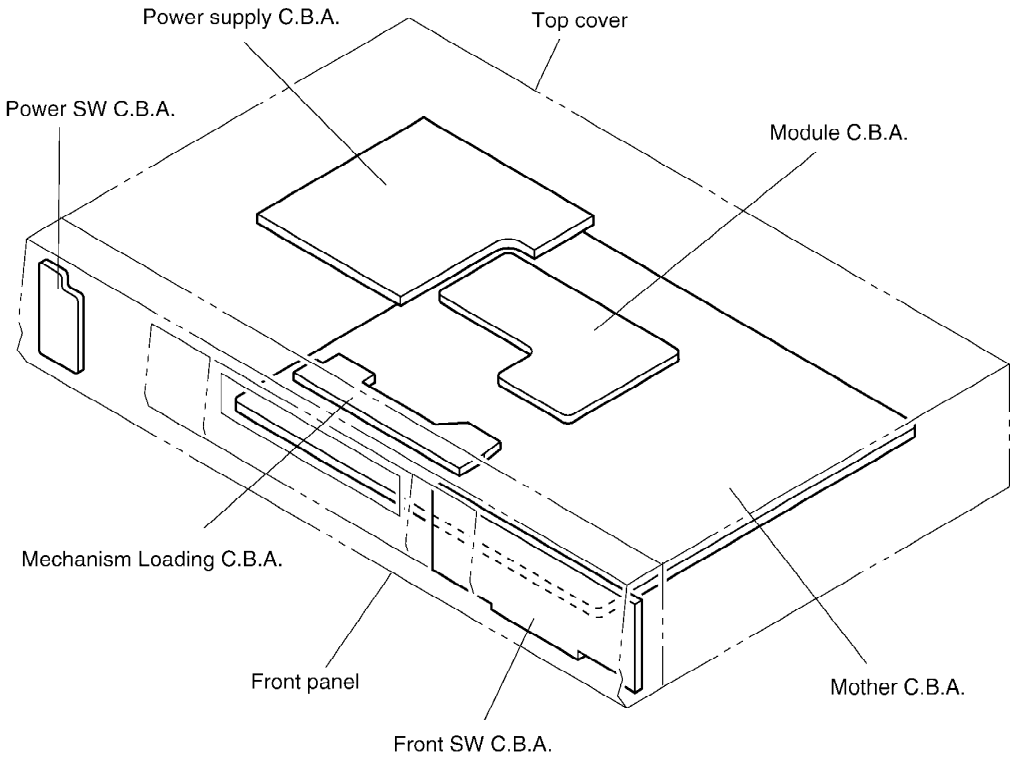
9. Assembling and Disassembling the Casing and Checking C.B.A.s

9.1. Disassembly Procedure

When servicing the unit, use the following procedure to disassemble the casing and inside parts for internal inspection.

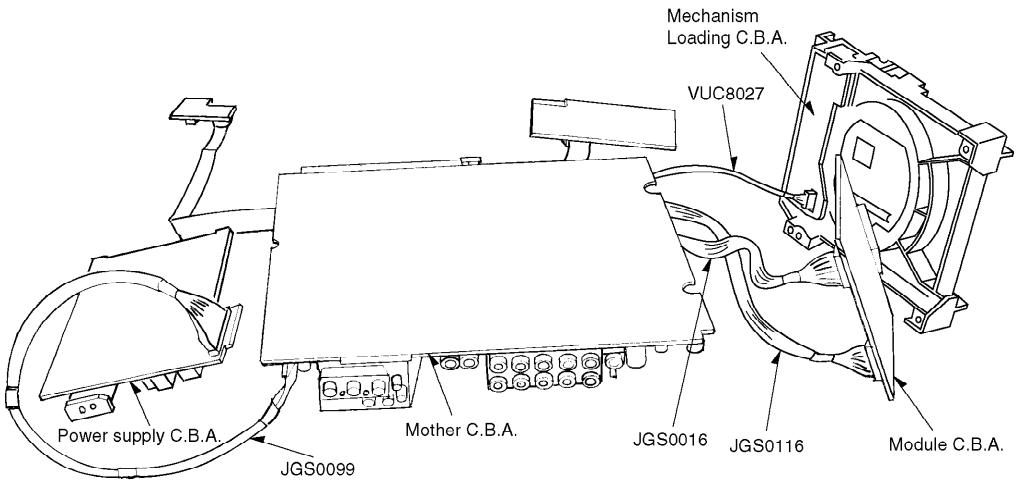


9.2. Casing Parts and C.B.A. Positions



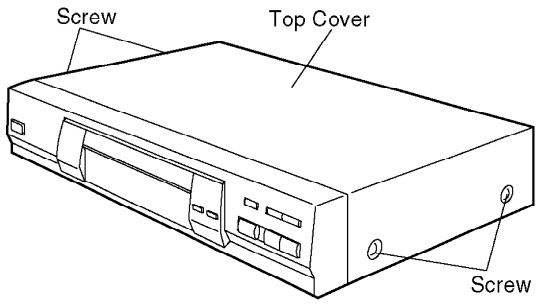
9.3. Service Positions

Note
To inspect the loading base unit, position the left side upward (as viewed from the front).

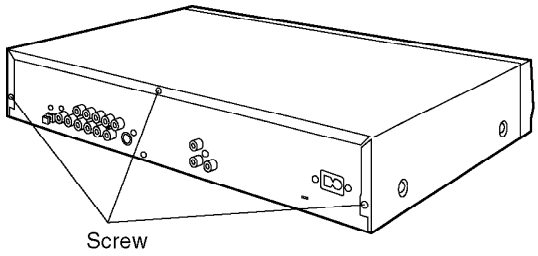


9.4. Disassembling the Top Cover

1. Remove the 4 screws.



2. Remove the 3 screws.

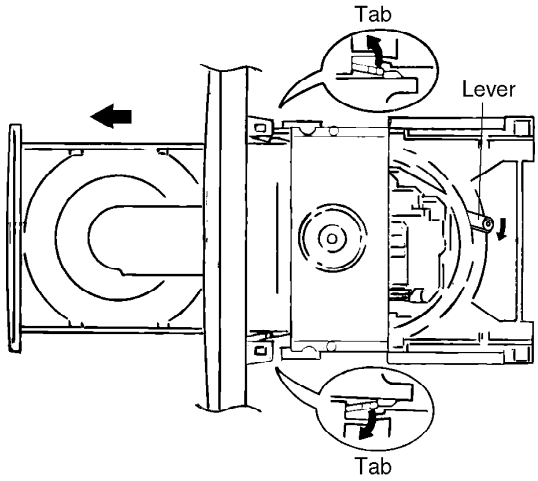


9.5. Disassembling the Tray

1. Turn the lever clockwise.

2. Move the tray in the direction of the arrow until it locks.

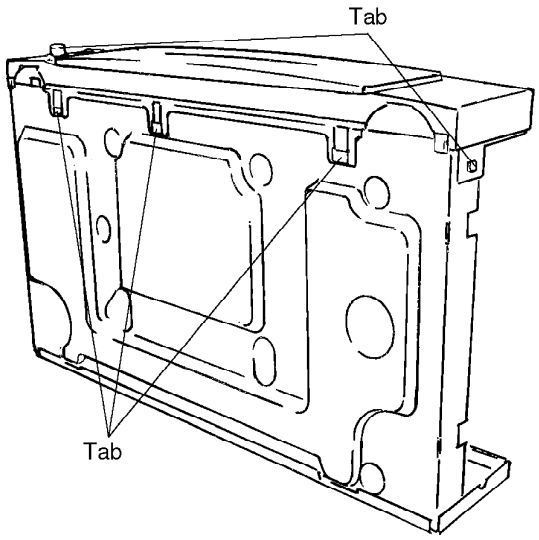
3. Release the tab locks on the left and right, then pull out the tray.



9.6. Disassembling the Front Panel

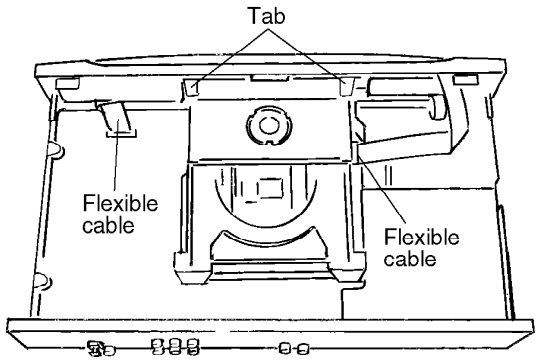
1. Release the 3 tabs on the bottom.

2. Release the 2 tabs on the left and right.



3. Release the 2 tabs.

4. Disconnect the 2 flexible cables.

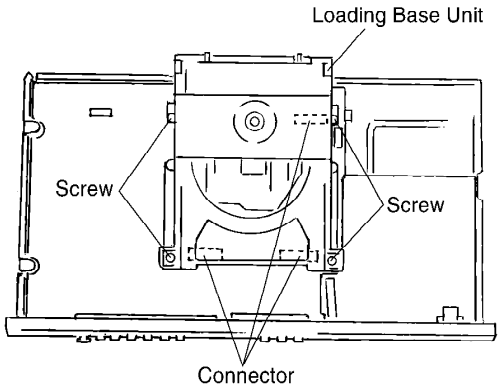


9.7. Disassembling the Loading Base Unit

1. Remove the 4 screws.

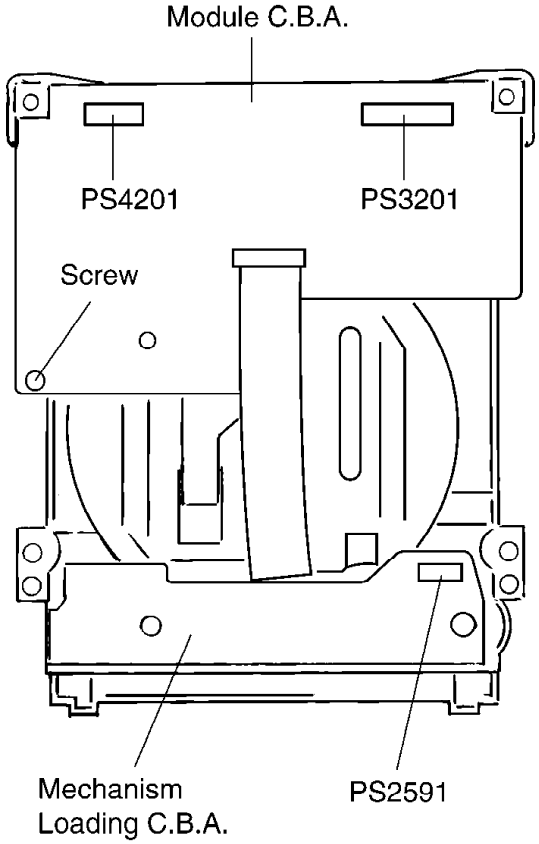
2. Pull out the loading base unit vertically.

Note
There is a danger of damaging the connectors.



9.8. Checking the Module C.B.A.

1. Remove the screw.

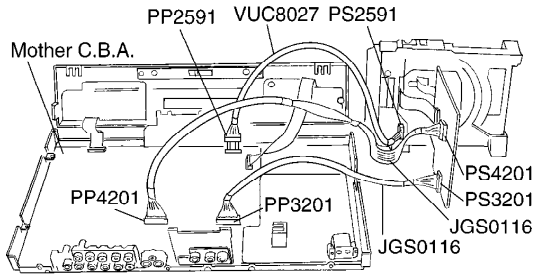


2. Connect the module C.B.A. to the mother C.B.A. with the extension cables for inspection.

- Extension cables: JGS0116 (two)
Mother C.B.A. Module C.B.A.
PP4201-PS4201
PP3201-PS3201

3. Connect the mechanism loading C.B.A. to the mother C.B.A.with the extension cable: for inspection.

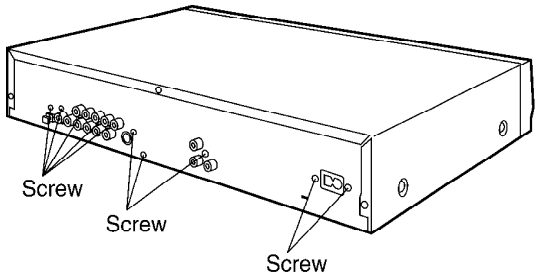
- Extension cable: VUC8027
Mother C.B.A. Mechanism Loading C.B.A. / PP2591-PS2591



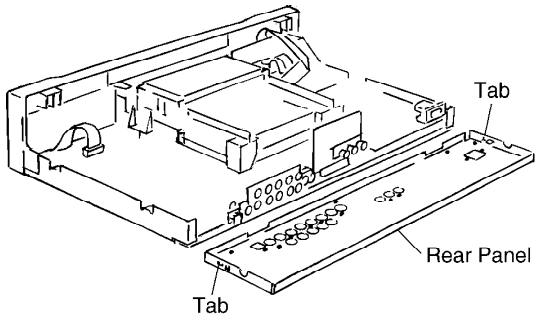
Note
Be sure to initialize the player whenever you replace a C.B.A. (Refer to section 10.1, Initializing the DVD Player.)

9.9. Disassembling the Rear Panel

1. Remove all of the screws connected to the rear panel. (The number of screws varies according to the model).

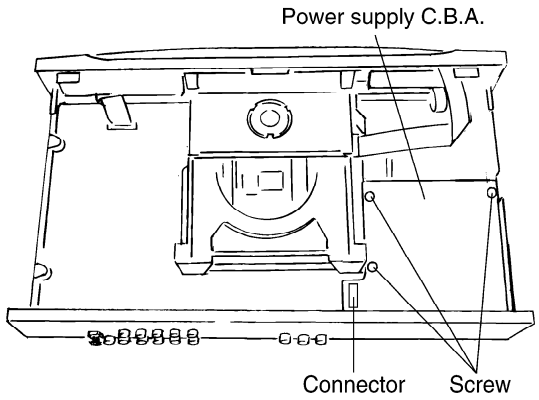


2. Release the two tabs on the left and right.



9.10. Checking the Power Supply C.B.A.

1. Remove the 3 screws.

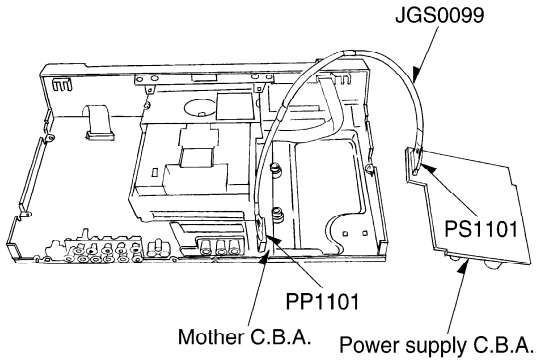


2. Carefully pull out the power supply C.B.A.

Note
There is a danger of damaging the connectors.

3. Connect the power supply C.B.A. and the mother C.B.A. with the extension cable for inspection.

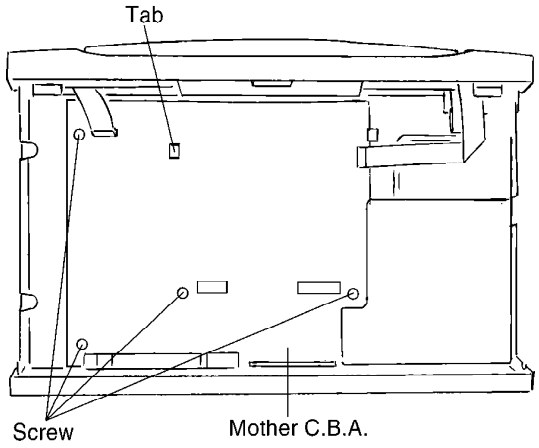
- Extension cable: JGS0099 (connects the power supply C.B.A. PS1101 and the mother C.B.A. PP1101)



9.11. Checking the Mother C.B.A.

1. Remove the 4 screws.

2. Release the tab.

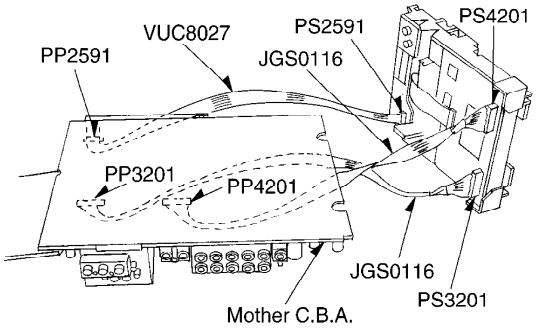


3. Check by connecting the module C.B.A. and the mother C.B.A. with the extension cables.

- Extension cables: JGS0116 (two)
Module C.B.A. Mother C.B.A.
PS3201-PP3201
PS4201-PP4201

4. Check by connecting the mechanism loading C.B.A. and the mother C.B.A. with the extension cable.

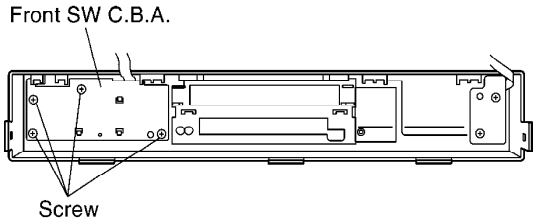
- Extension cable: VUC8027
Mechanism Loading C.B.A. Mother C.B.A. / PS2591-PP2591



Note
Be sure to initialize the player whenever you replace a C.B.A. (Refer to section 10.1, Initializing the DVD player.)

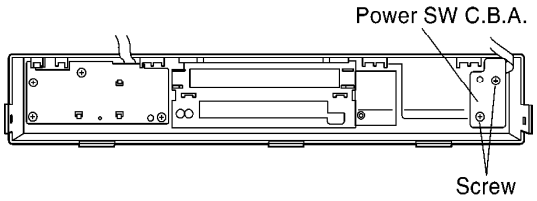
9.12. Checking the Front Switch C.B.A.

1. Remove the 4 screws.



9.13. Checking the Power Switch C.B.A.

1. Remove the 2 screws.



10. Service Precautions

10.1. Initializing the DVD Player

Initialize the DVD player whenever you replace a microprocessor, microprocessor peripheral parts, module C.B.A or mother C.B.A.

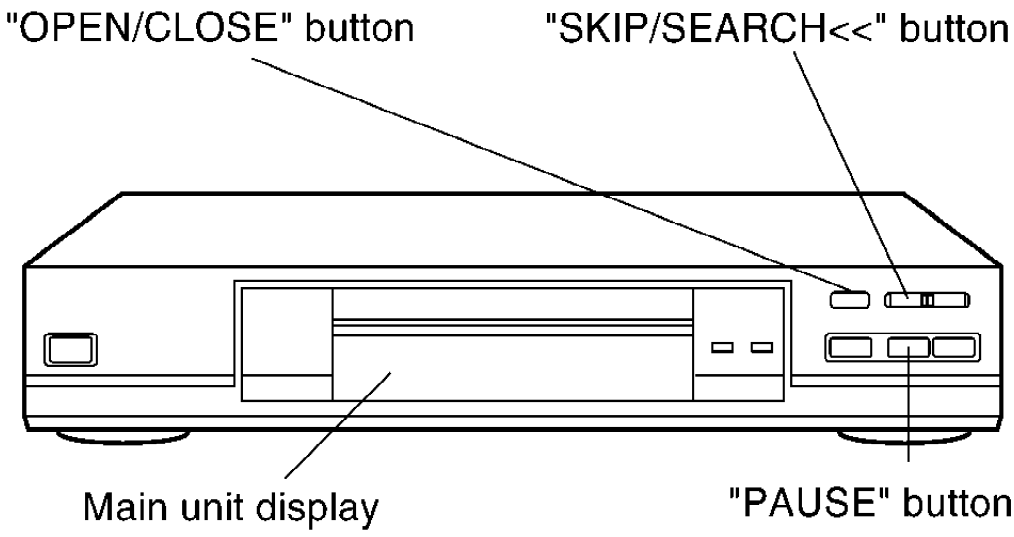
10.1.1. Precautions

The customer settings will return to factory preset settings when the player is initialized. Make a note of the settings and reset them after initializing.

- When resetting, see the Initial Settings in the Operating Instructions.

10.1.2. Initialization Method

The player will be initialized (return to the factory preset condition) when you press the "PAUSE," "SKIP/SEARCH<<" and "OPEN/CLOSE" buttons simultaneously. When the DVD player is initialized, "Initialized" appears on screen, it also displays "INITIALIZE".
Press them at the least for three seconds after you confirmed the display.



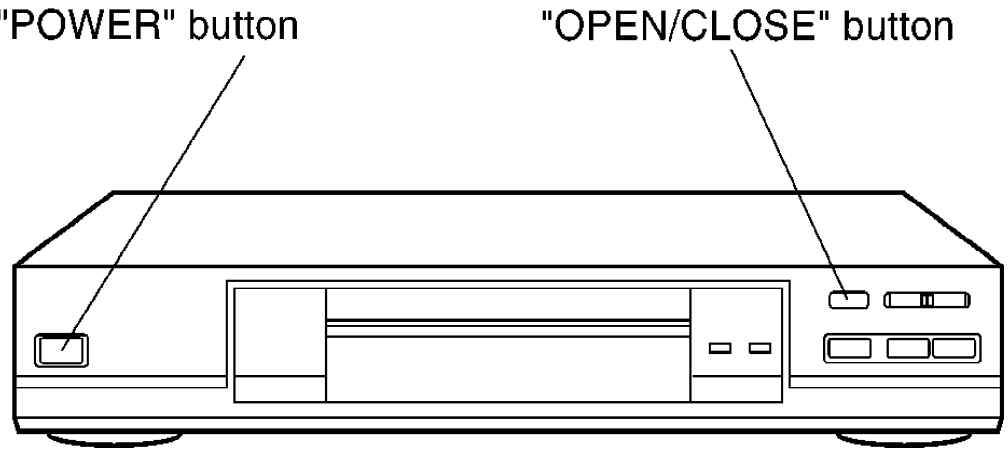
10.2. Handling After Completing Repairs

Use the following procedure to secure the traverse unit in the standby position.

10.2.1. Method

Confirm that the power is turned on:

1. **Press the "OPEN/CLOSE" button to close the tray.**
2. **Press the "POWER" button to turn off the power.**
3. **Disconnect the power plug from the outlet.**



10.2.2. Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually. If you were to do so, the traverse unit would not go to the upper (standby) position, and the player could not be transported.

11. Assembling and Disassembling the Optical Pickup (Mechanical Parts)

The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

11.1. Handling the Optical Pickup

The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

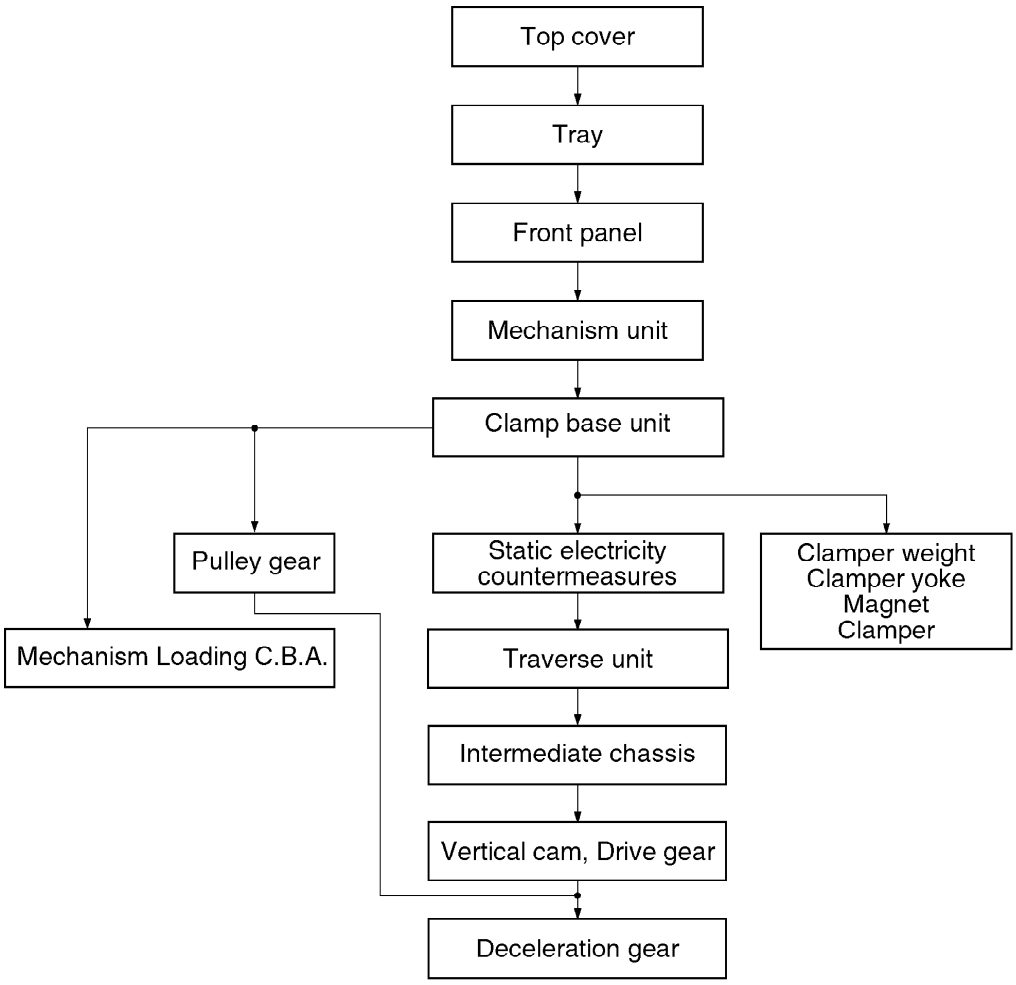
1. **The optical pickup is an extremely high-precision mechanism. Do not subject it to strong impact.**
2. **To preserve the quality of the optical pickup replacement parts during transport and installation, the terminals of the laser diode are short-circuited. After replacing the parts, use the proper procedure to return the laser diode to its original condition. (Refer to section 11.11, Assembling the Optical Pickup.)**
3. **Testers cannot be used to check the laser diode of the optical**

pickup. The power supply inside the tester can easily damage the laser diode.

4. **Take care when handling the flexible cable because excessive force can cause it to break.**
5. **You cannot adjust the semifixed resistor for laser power adjustment. Do not turn it.**

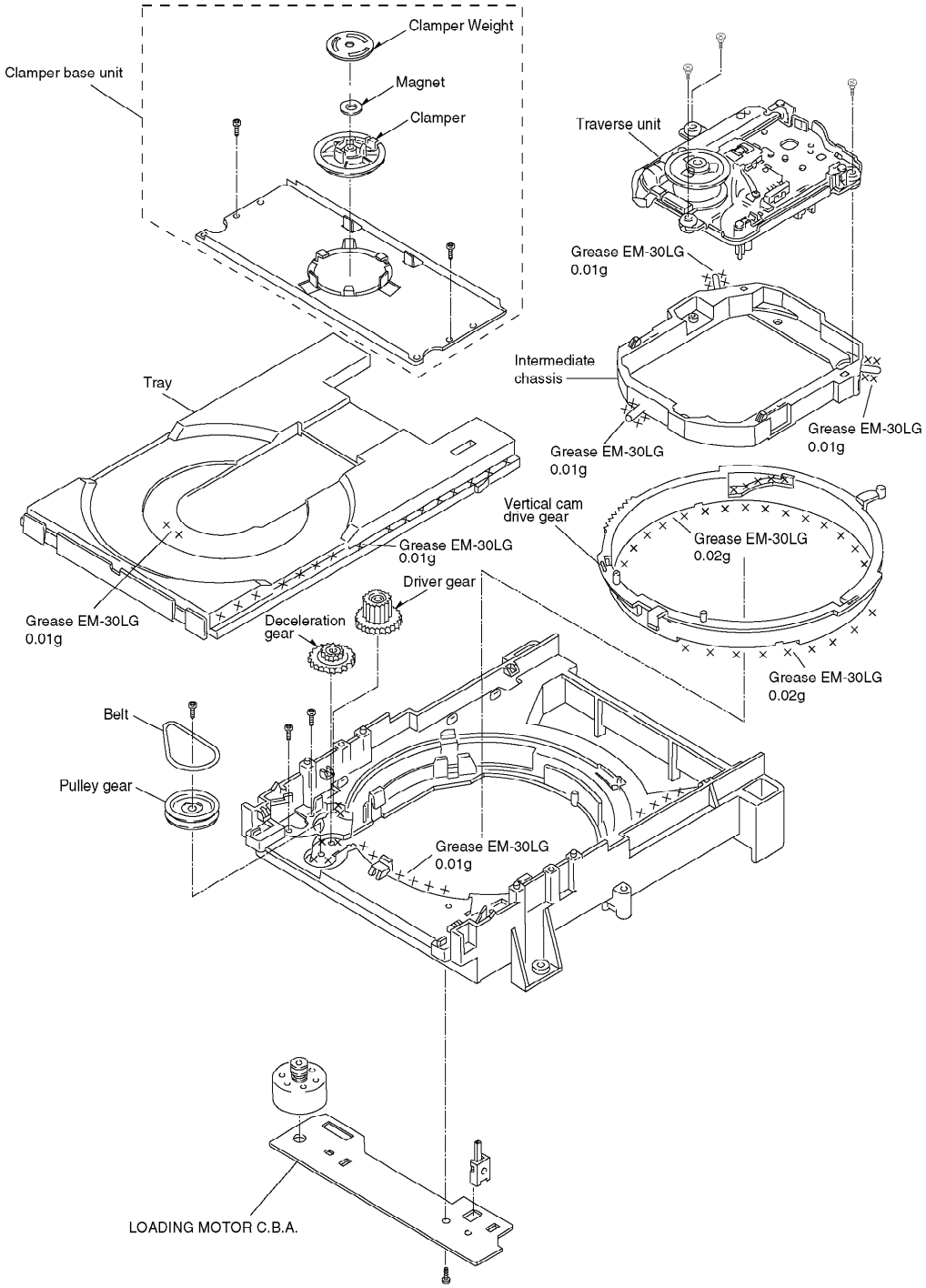
11.2. Disassembly Procedure

Use the following procedure to replace major parts.
For the assembly procedure, follow the flow chart in reverse.



11.3. Lubricating the Loading Base Unit

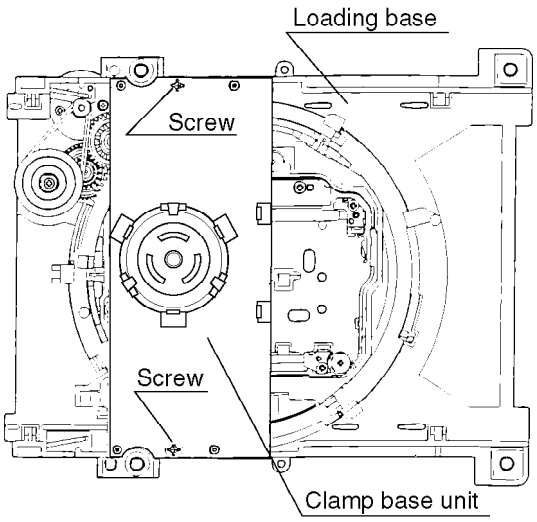
When replacing parts, lubricate the parts maked "xxx" in the diagram



	Part number	Service Tool
Grease	JGS0091	Grease EM-30LG

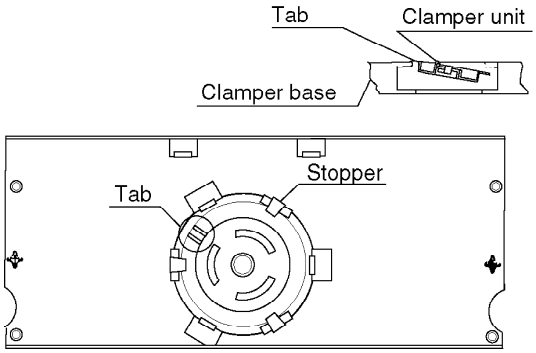
11.4. Disassembling the Clamp Base Unit

1. Remove the 2 screws.

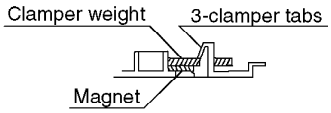


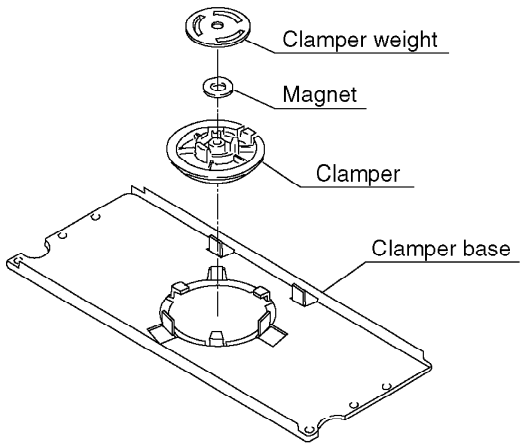
11.5. Disassembling the Clamper Weight, Clamper Yoke, Magnet and Clamper

1. Release the tab, and pull out the clamper.



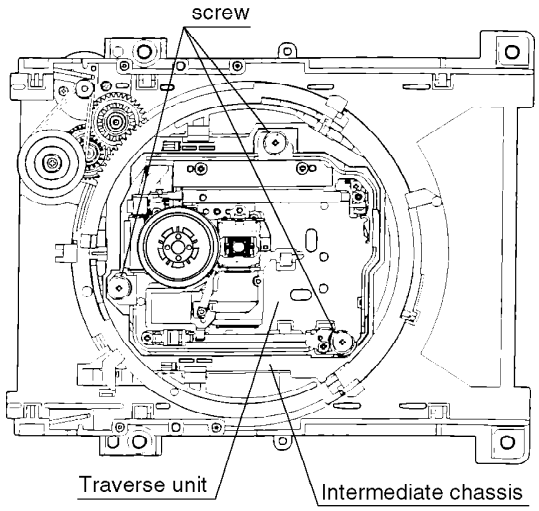
2. Release the 3 tabs on the clamper.





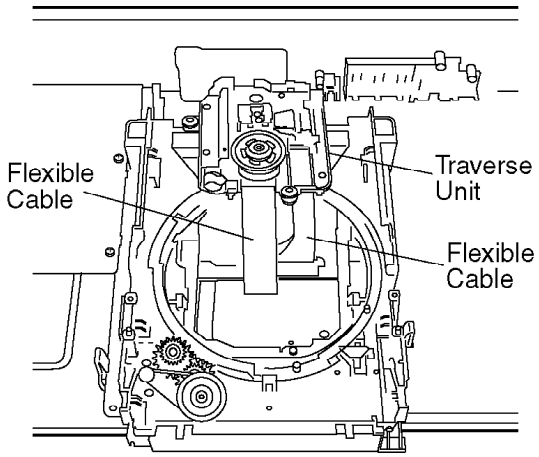
11.6. Disassembling the Traverse Unit

1. Remove the 3 screws.



Note
Be sure to take static electricitiy countermeasures befer disconnecting the flexible cable.(Refer to section 4, HANDLING PRECAUTIONS FOR TRAVERSE DECK.)

2. Disconnect the 2 flexible cables.

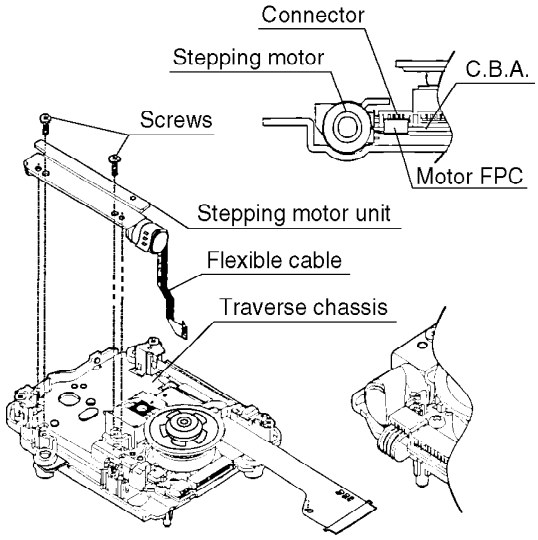


11.7. Disassembling the Stepping Motor Unit

1. Disconnect the flexible cable.

2. Remove the 2 screws.

Note
Take care when handling the flexible cable because it can be broken by excessive force.



11.8. Disassembling the Optical Pickup Unit

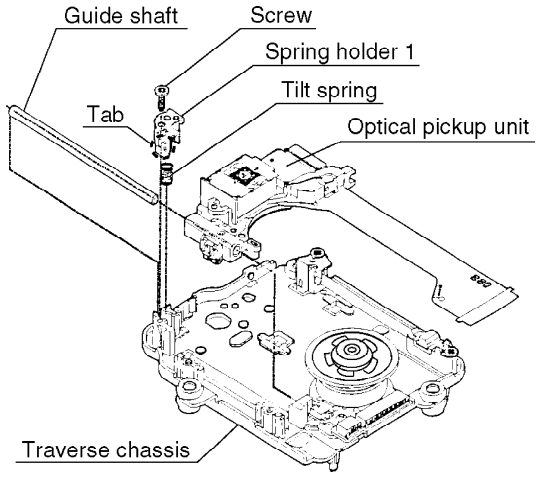
1. Remove the screw.

2. Release the tab, then remove spring holder 1.

Note
Be sure not to lose the spring.

3. Remove the guide shaft.

Note
Be sure to adjust the optical pickup tilt after replacing the optical pickup. / (Refer to section 11.13, Opitcal Pickup Tilt Adjustment.)

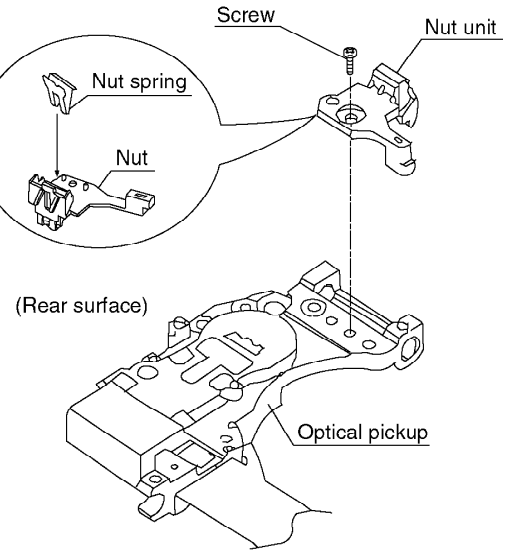


11.9. Disassembling the Nut Unit

1. Remove the screw.

Notes

- **The nut unit is not part of the optical pickup. / Before replacing the optical pickup, remove the nut unit for use with the new optical pickup.**
- **After installation, use screw lock to lock the screw in position.**
- **When reassembling, use screw lock to lock the screw in position after attaching it.**

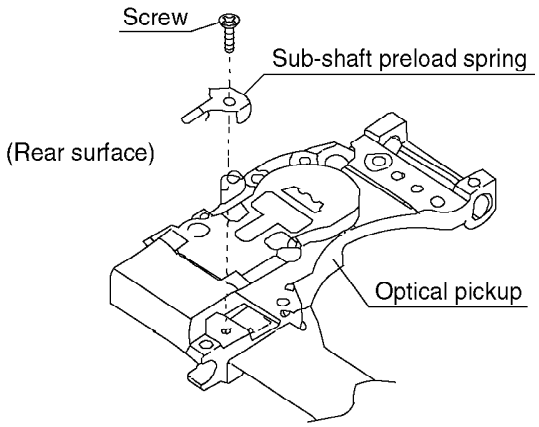


11.10. Disassembling the Sub-Shaft Preload Spring

1. Remove the screw.

Notes

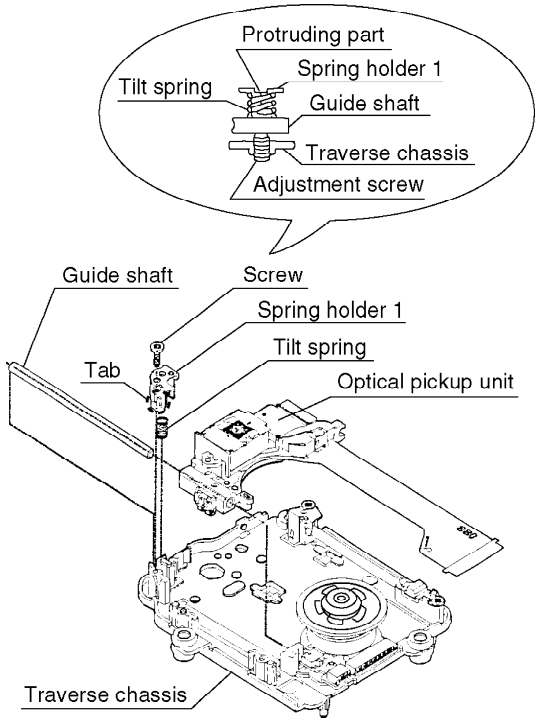
- **Handle the sub-shaft preload spring carefully because the shape of the tip is easily deformed.**
- **The sub-shaft preload spring is not part of the optical pickup. Before replacing the optical pickup, remove the sub-sahft preload spring for use with the new optical pickup.**
- **After installation, use screw lock to lock the screw in position.**



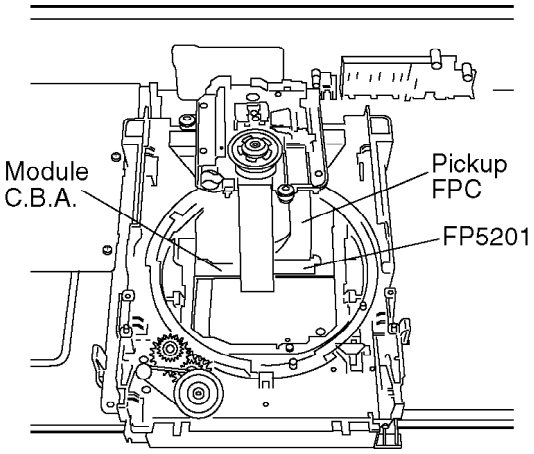
11.11. Assembling the Optical Pickup

1. Install the optical pickup.

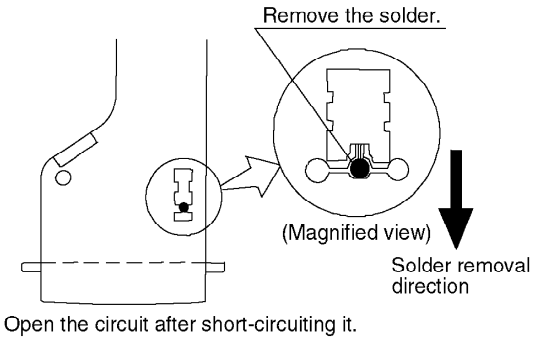
Note
Take care not ot attach the tilt spring and guide shaft in the wrong order.



2. Insert the pickup FPC into connector FP5201 on the module C.B.A.



3. Remove the solder from the pickup FPC's soldered short-circuit.

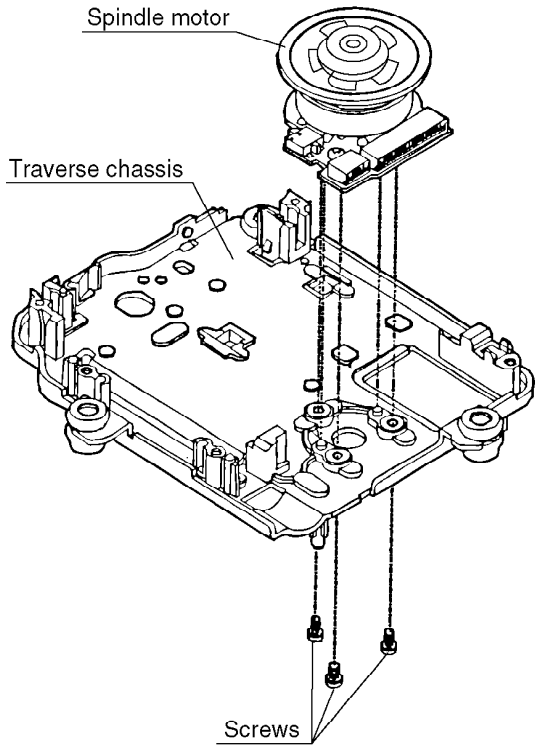


4. Adjust the optical pickup tilt after removing the solder. (Refer to section 11.13, Optical Pickup Tilt Adjustment.)

11.12. Disassembling the Spindle Motor Unit

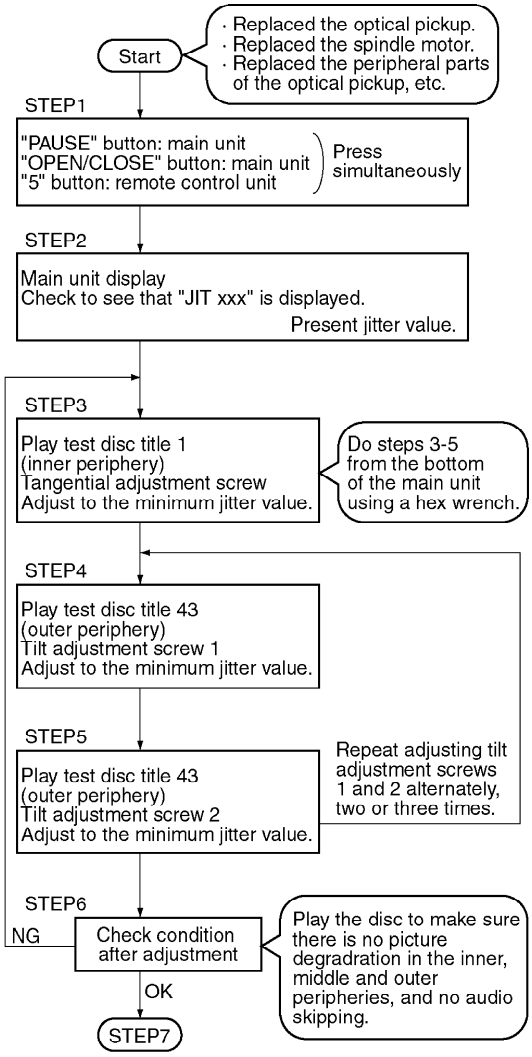
1. Remove the three screws.

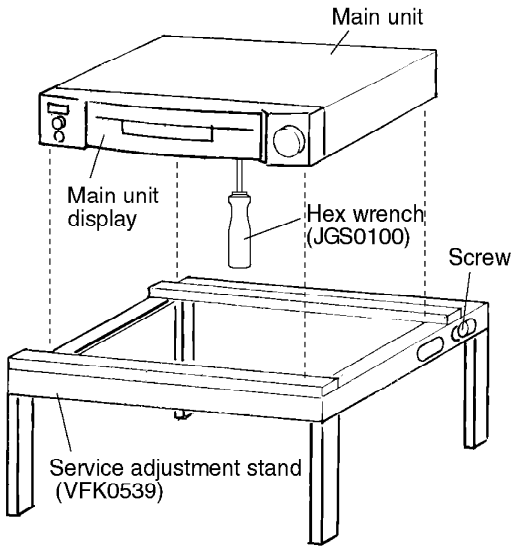
Note
Be sure to adjust the optical pickup tilt after replacing the spindle motor unit.

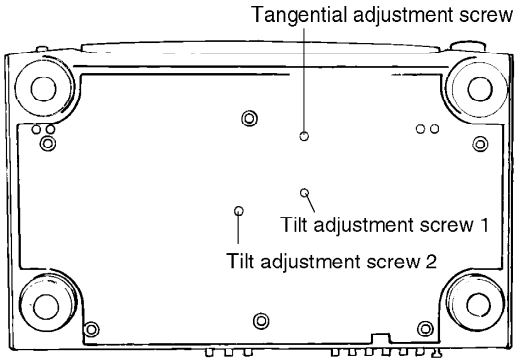


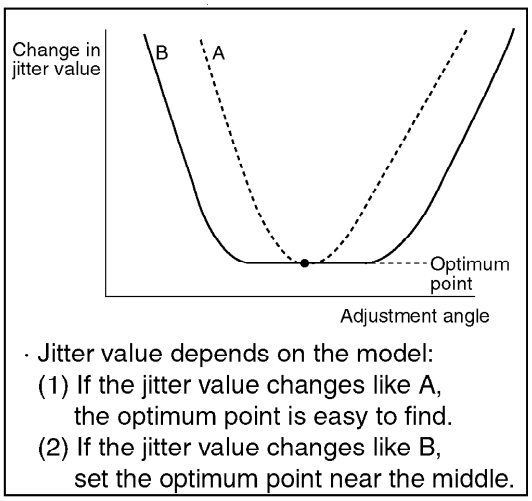
11.13. Optical Pickup Tilt Adjustment

Measurement point	Adjustment point	Mode	Disc
Main unit service display	Tangential adjustment screw Tilt adjustment screw	T1 (inner periphery) play T43 (outer periphery) play	DVDT-S15 or DVDT-S01
Measuring equipment, tools		Adjustment value	
Hex wrench (part number: JGS0100) Screw lock (part number: RZZ0L01)		Adjust to the minimum jitter value.	

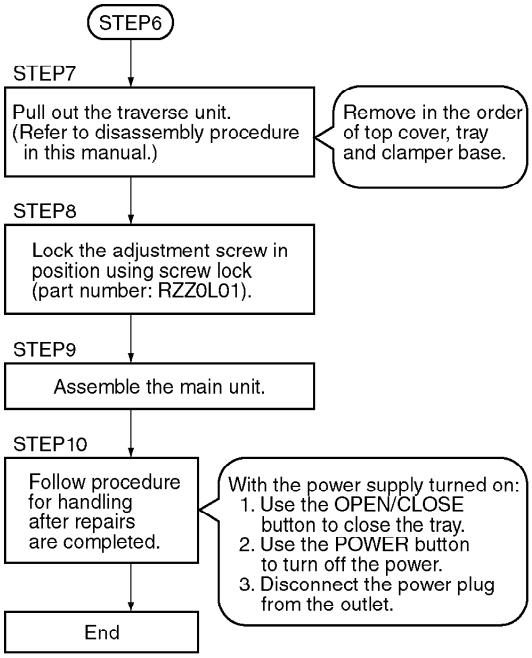

· Replaced the optical pickup.
· Replaced the spindle motor.
· Replaced the peripheral parts of the optical pickup, etc.
Start
STEP1
"PAUSE" button: main unit
"OPEN/CLOSE" button: main unit
"5" button: remote control unit
Press simultaneously
STEP2
Main unit display
Check to see that "JIT xxx" is displayed.
Present jitter value.
STEP3
Play test disc title 1
(inner periphery)
Tangential adjustment screw
Adjust to the minimum jitter value.
Do steps 3-5 from the bottom of the main unit using a hex wrench.
STEP4
Play test disc title 43
(outer periphery)
Tilt adjustment screw 1
Adjust to the minimum jitter value.
STEP5
Play test disc title 43
(outer periphery)
Tilt adjustment screw 2
Adjust to the minimum jitter value.
Repeat adjusting tilt adjustment screws 1 and 2 alternately, two or three times.
STEP6
NG
Check condition after adjustment
Play the disc to make sure there is no picture degradration in the inner, middle and outer peripheries, and no audio skipping.
OK
STEP7

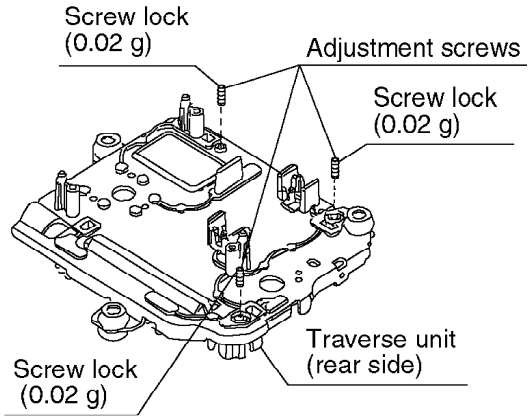

Main unit
Main unit display
Hex wrench (JGS0100)
Screw
Service adjustment stand (VFK0539)





· Jitter value depends on the model:
(1) If the jitter value changes like A, the optimum point is easy to find.
(2) If the jitter value changes like B, set the optimum point near the middle.


STEP6
STEP7
Pull out the traverse unit. (Refer to disassembly procedure in this manual.)
Remove in the order of top cover, tray and clamper base.
STEP8
Lock the adjustment screw in position using screw lock (part number: RZZ0L01).
STEP9
Assemble the main unit.
STEP10
Follow procedure for handling after repairs are completed.
With the power supply turned on:
1. Use the OPEN/CLOSE button to close the tray.
2. Use the POWER button to turn off the power.
3. Disconnect the power plug from the outlet.
End



Notes

- Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, adjust if there is a noticeable degradation in picture quality.

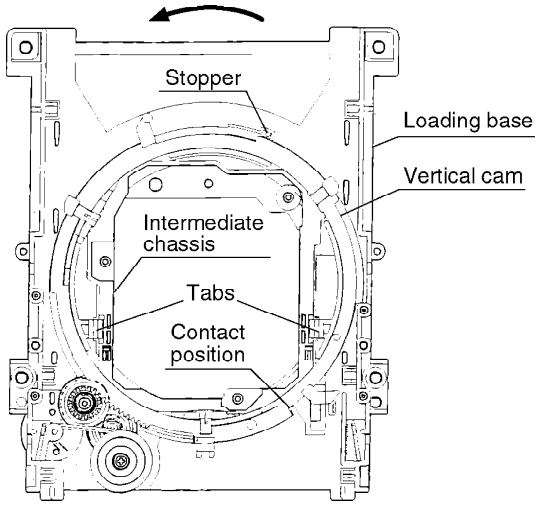
- Optical adjutments cannnot be made inside the optical pickup.

- Adjustment is generally unnecessary after replacing the traverse unit.

11.14. Disassembling the Intermediate Chassis

1. Push the stopper downward, then rotate it until it contacts the Vertical cam.

2. Release the 2 tabs.

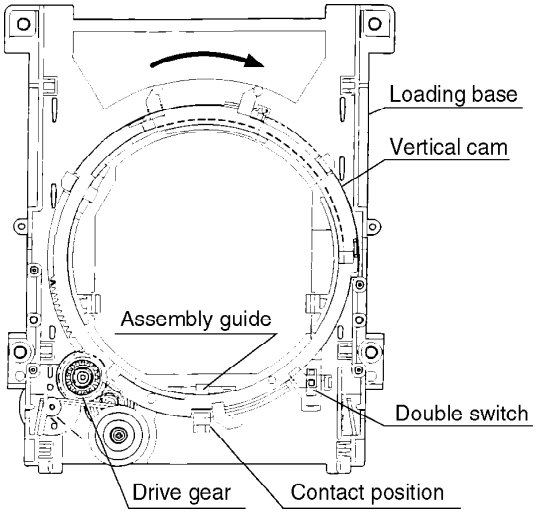


11.15. Disassembling the Vertical cam and Drive gear

1. Rotate the Vertical cam until it reaches the contact position.

2. Lift the Vertical cam straight upward to pull it out.

3. Remove the Drive gear.



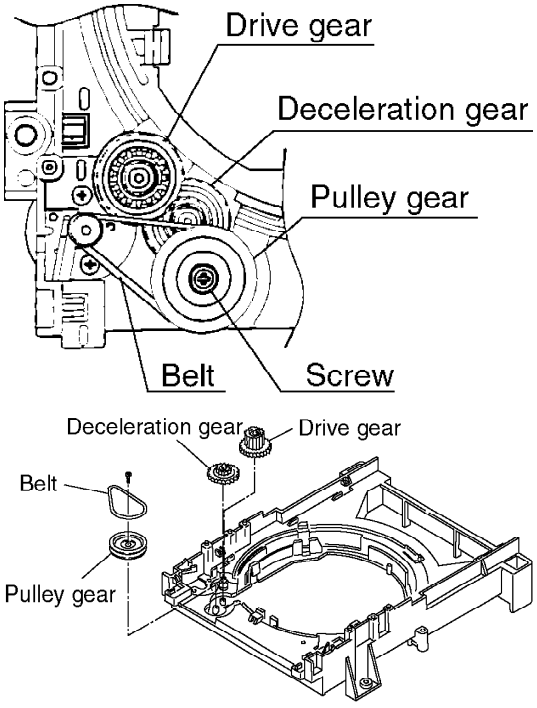
11.16. Disassembling the Pulley Gear and Deceleration Gear

1. Remove the screw.

2. Remove the pulley gear.

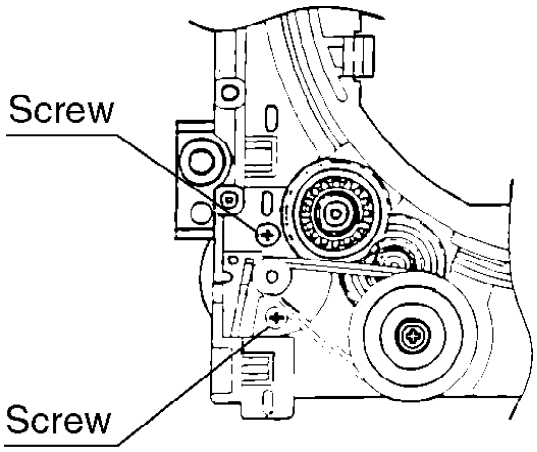
3. Remove the belt.

4. Remove the deceleration gear.



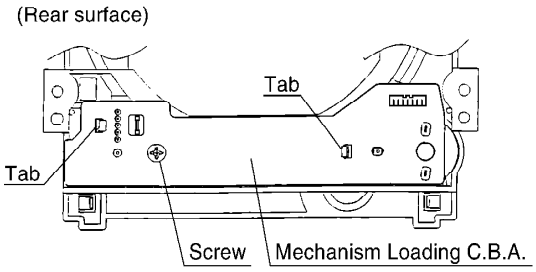
11.17. Disassembling the Mechanism Loading C.B.A.

1. Remove the 2 screws.



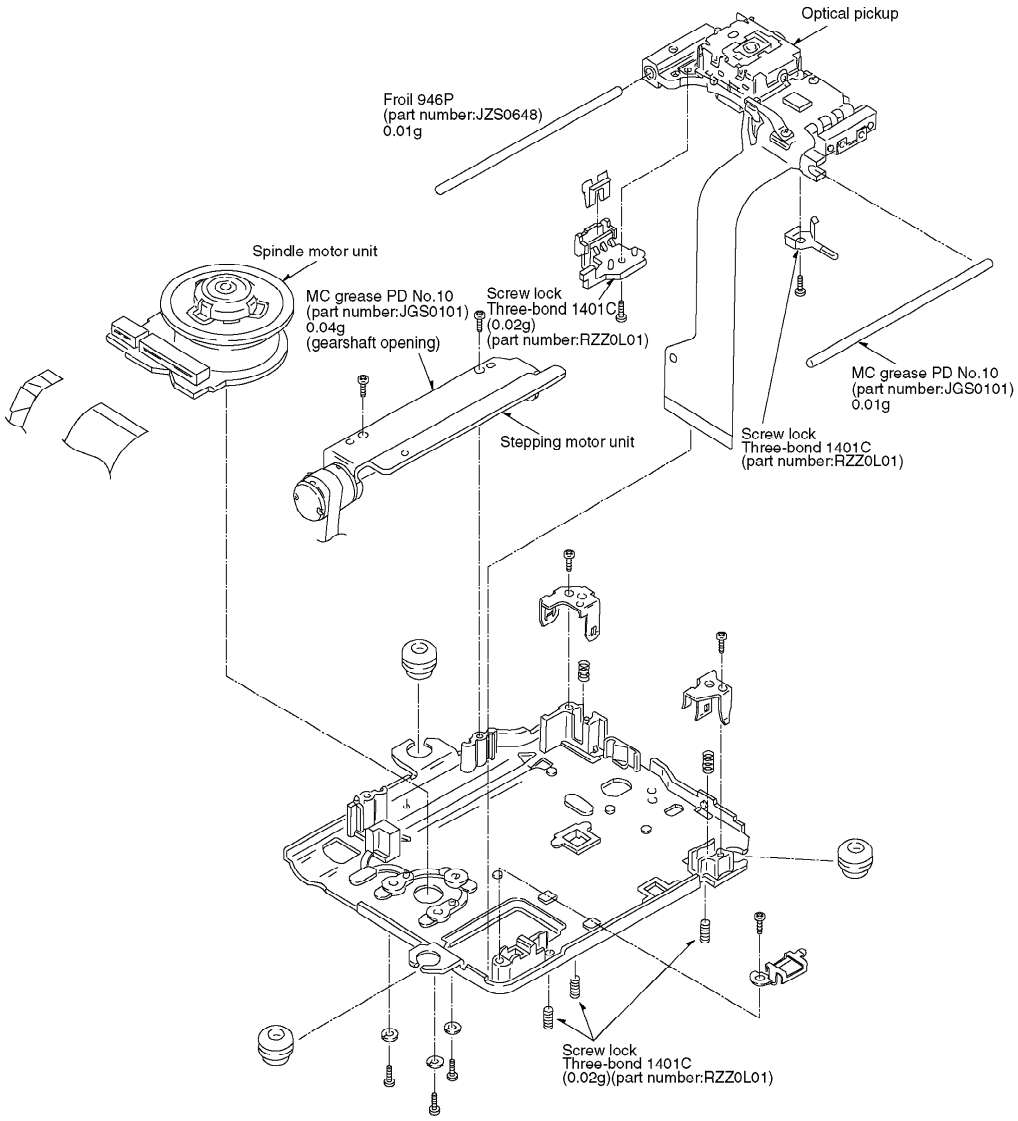
2. Remove the 2 screws.

3. Release the 2 tabs.



11.18. Lubricating the Optical Pickup and Peripheral Parts

When replacing parts, lubricate the parts marked "xxx" in the diagram.



	Part number	Service Tool
Screw lock	RZZ0L01	Three-bond 1401C
Lubricating oil	JZS0648	Froil 946P
Grease	JGS0101	MC grease PD no. 10

12. Electrical Confirmation

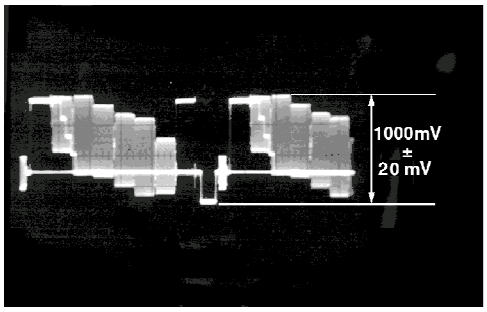
12.1. Video Output (Luminance Signal) Confirmation

Do this confirmation after replacing a C.B.A.

Measurement point	Mode	Disc
Video output terminal	Color bar 75% PLAY (Title 46):DVDT-S15 PLAY (Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment, tools	Confirmation value	
Screwdriver, Oscilloscope 200mV/div, 10 μ sec/div	1000mVp-p±20mV	

Purpose: To maintain video signal output compatibility.

1. **Connect the oscilloscope to the video output terminal and terminate at 75 ohms.**
2. **Confirm that the luminance signal (Y+S) level is 1000 mVp-p±20 mV.**



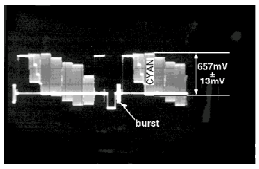
12.2. Video Output (Chrominance Signal) Confirmation

Do this confirmation after replacing a C.B.A.

Measurement point	Mode	Disc
Video output terminal	Color bar 75% PLAY (Title 46):DVDT-S15 PLAY (Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment, tools	Confirmation value	
Screwdriver,Oscilloscope 200mV/div, 10 μ sec/div	657mVp-p±13mV	

Purpose: To maintain video signal output compatibility.

1. **Connect the oscilloscope to the video output terminal and terminate at 75 ohms.**
2. **Confirm that the chrominance signal (C) level is 657 mVp-p±13 mV.**



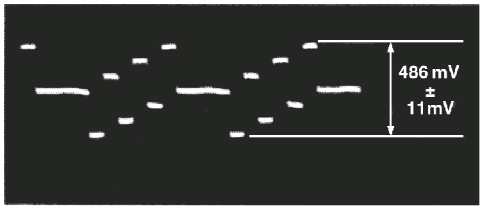
12.3. Video Component Signal (CB) Output Confirmation

Do this Confirmation after replacing a C.B.A.

Measurement point	Mode	Disc
Video output terminal (Y) (CB) Output terminal	Color bar 75% PLAY (Title 46):DVDT-S15 PLAY (Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment, tools	Confirmation value	
Screwdriver, Oscilloscope 100mV/div, 10 μ sec/div	486mVp-p±11mV	

Purpose: To maintain video signal output compatibility.

1. **Connect the oscilloscope to the video component output terminal and terminate at 75 ohms.**
2. **Apply the trigger at the Y output terminal signal.**
3. **Confirm that the video component signal (CB) level is 486 mVp-p ± 11 mV.**



13. Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	
	ASI	AUDIO RF
	ASO	SERVO AMP INVERTED INPUT
	ASYNC	SERVO AMP OUTPUT
		AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR
	CBDO	VELOCITY
	CD	CAP. BLACK DROP OUT
	CDSCK	COMPACT DISC
	CDSRDATA	CD SERIAL DATA CLOCK
		CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCK SELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIP SELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT

INITIAL/LOGO		ABBREVIATIONS
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATA OUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/ 40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	FOCUS ERROR AMP OUTPUT
	FG	FREQUENCY GENERATOR
	FSC	FREQUENCY SUB CARRIER
	FSCK	FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE

INITIAL/LOGO		ABBREVIATIONS
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	INTERPOLATION FLAG
	IREF	I (CURRENT) REFERENCE
	ISEL	INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	MEMORY SERIAL COMMAND DATA
	MDQ0~UP	MEMORY DATA INPUT/OUTPUT
	MDQM	MEMORY DATA I/O MASK
	MLD	MEMORY SERIAL COMMAND LOAD
	MPEG	MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	PLL CLOCK
	PDVD	DVD TRACKING PHASE DIFFERENCE
	PEAK	CAP. FOR PEAK HOLD
	PLLCLK / PLLOK	CHANNEL PLL CLOCK PLL LOCK
	PWMCTL	PWM OUTPUT CONTROL
	PWMDA	PULSE WAVE MOTOR DRIVE A
	PWMOA, B	PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECT CLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUB CODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	STCLK	STATUS
	STD0~UP	STREAM DATA CLOCK
	STENABLE	STREAM DATA
		STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY
	STVALID	SELECT
	SUBC	STREAM DATA VALIDITY
	SBCK	SUB CODE SERIAL
	SUBQ	SUB CODE CLOCK
	SYSCLK	SUB CODE Q DATA

	SYSCLK	SYSTEM CLOCK

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSS SIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING BALANCE)
	VDD	DRAIN POWER SUPPLY VOLTAGE
	VFB	VIDEO FEED BACK
	VREF	VOLTAGE REFERENCE
	VSS	SOURCE POWER SUPPLY VOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER

INITIAL/LOGO		ABBREVIATIONS
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPT REQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIP SELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE X VERTICAL SYNC OUTPUT

14. VOLTAGE CHART

14.1. POWER SUPPLY C.B.A.

14.2. MODULE C.B.A.

14.3. MOTHER C.B.A.

15. BLOCK DIAGRAM

15.1. OVERALL BLOCK DIAGRAM

15.2. SERVO BLOCK DIAGRAM

15.3. VIDEO BLOCK DIAGRAM

15.4. AUDIO BLOCK DIAGRAM

16. SCHEMATIC DIAGRAM

16.1. INTERCONNECTION SCHEMATIC DIAGRAM

16.2. POWER SUPPLY SCHEMATIC DIAGRAM

16.3. ADSC SECTION (MODULE C.B.A. (1/7)) SCHEMATIC DIAGRAM

16.4. AV DECORDER SECTION (MODULE C.B.A. (2/7)) SCHEMATIC DIAGRAM

16.5. VIDEO D/A CONVERTER SECTION (MODULE C.B.A. (3/7)) SCHEMATIC DIAGRAM

16.6. AUDIO SECTION (MODULE C.B.A. (4/7)) SCHEMATIC DIAGRAM

16.7. FEP SECTION (MODULE C.B.A. (5/7)) SCHEMATIC DIAGRAM

16.8. CPU SECTION (MODULE C.B.A. (6/7)) SCHEMATIC DAIGRAM

16.9. ODC SECTION (MODULE C.B.A. (7.7)) SCHEMATIC DIAGRAM

16.10. VIDEO OUT SECTION (MOTHER C.B.A. (1/4)) SCHEMATIC DIAGRAM

16.11. AUDIO OUT1 SECTION (MOTHER C.B.A. (2/4)) SCHEMATIC DIAGRAM

16.12. AUDIO OUT2 SECTION (MOTHER C.B.A. (3/4)) SCHEMATIC DIAGRAM

16.13. OPERATION SECTION (MOTHER C.B.A. (4/4)) SCHEMATIC DIAGRAM

16.14. FRONT SWITCH AND POWER SWITCH SCHEMATIC DIAGRAM

17. CIRCUIT BOARD ASSEMBLY

17.1. POWER SUPPLY C.B.A.

17.2. MODULE C.B.A. (1/2) (COMPONENT SIDE)

17.3. MODULE C.B.A. (2/2) (FOIL SIDE)

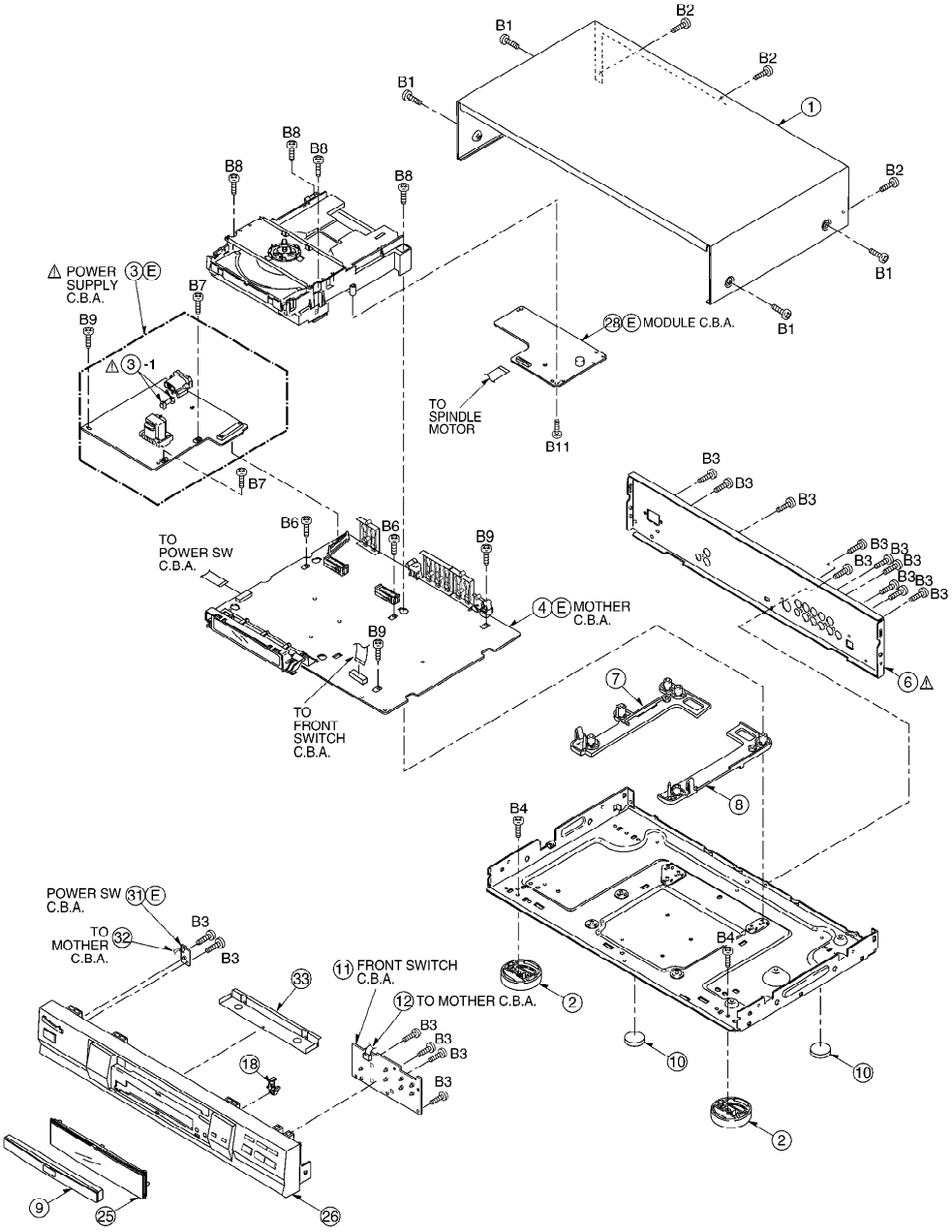
17.4. MODULE C.B.A. AND MOTHER C.B.A. ADDRESS INFORMATION

17.5. MOTHER C.B.A.

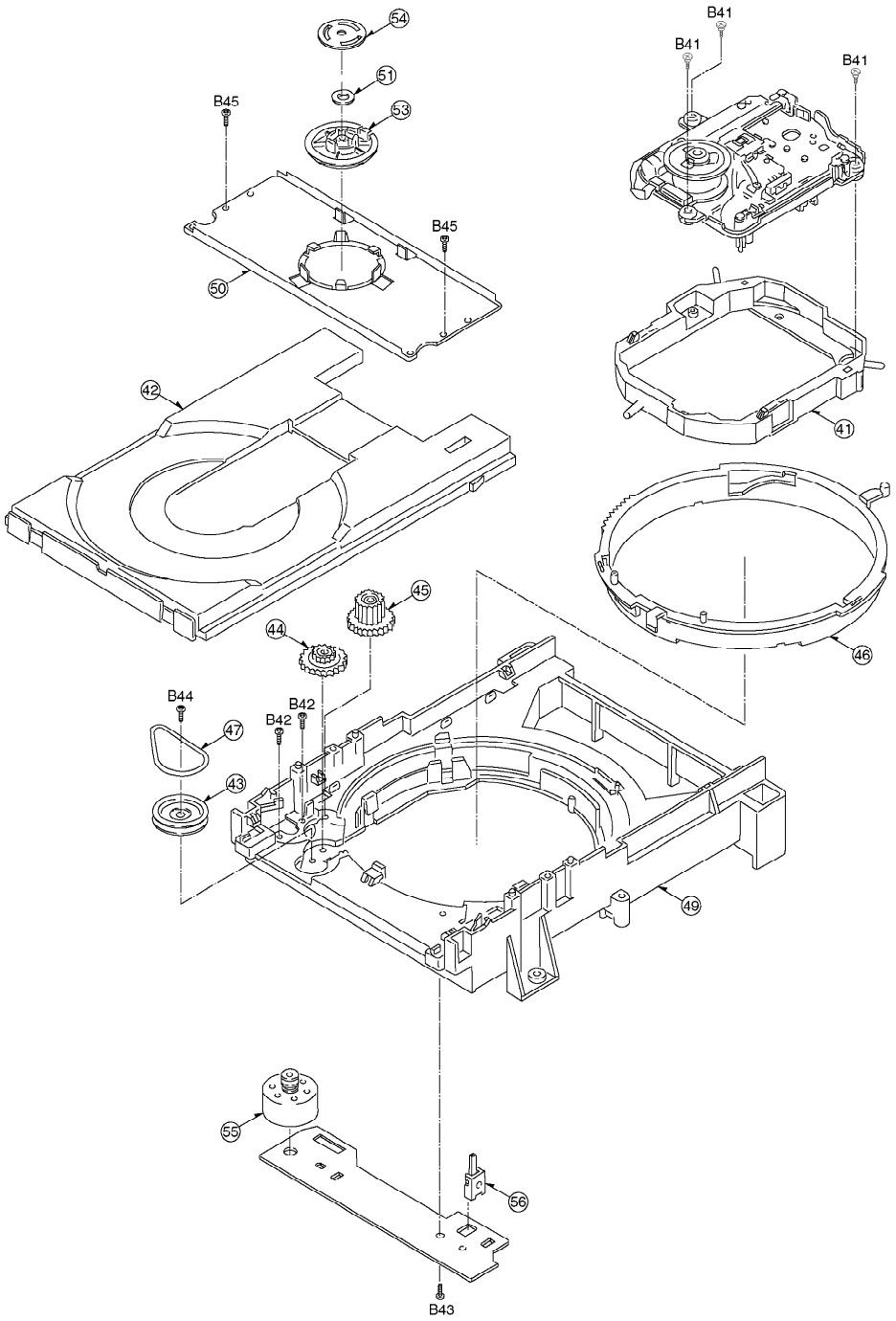
17.6. FRONT SWITCH C.B.A. AND POWER SWITCH C.B.A.

18. EXPLODED VIEWS

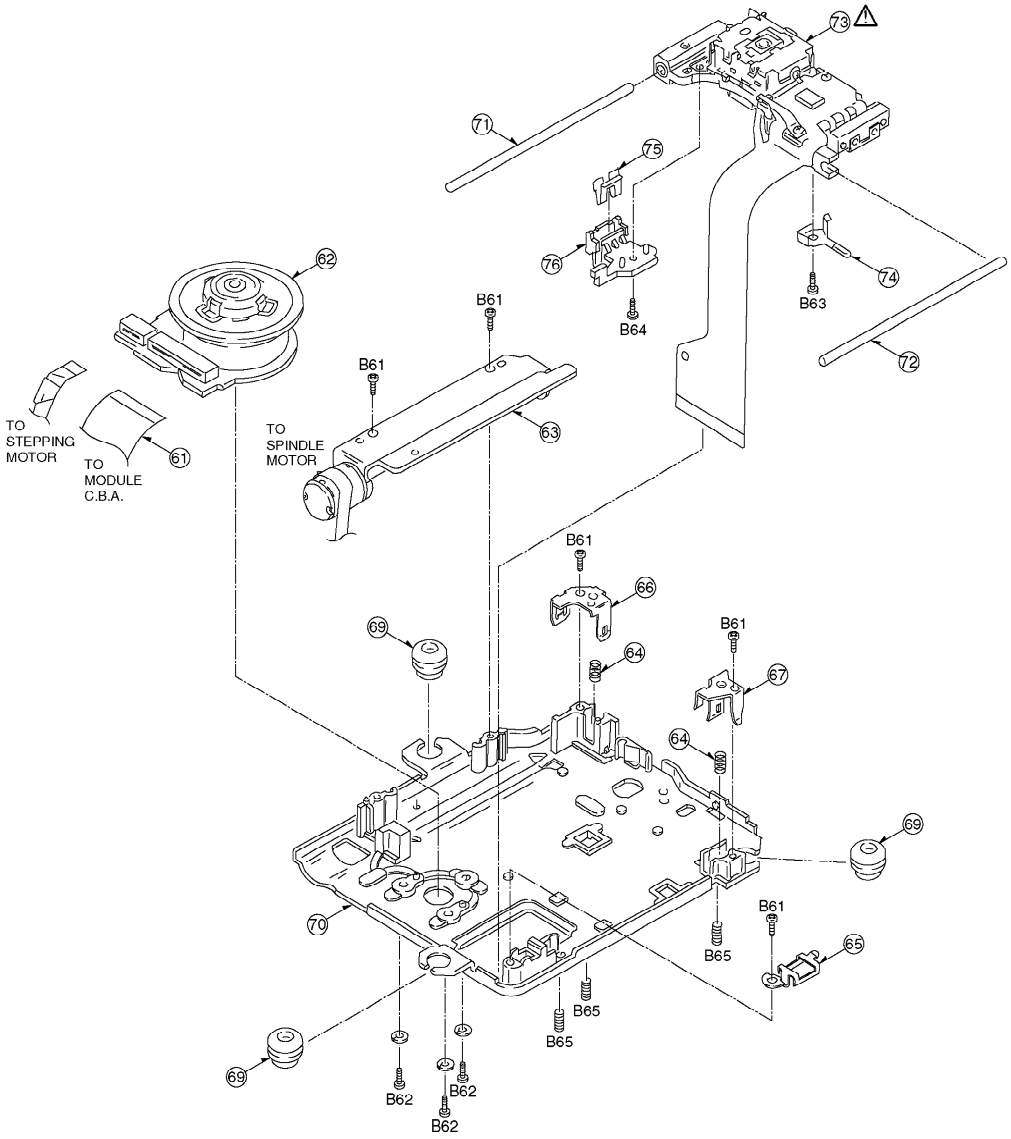
18.1. Casing Parts & Mechanism Section Exploded View



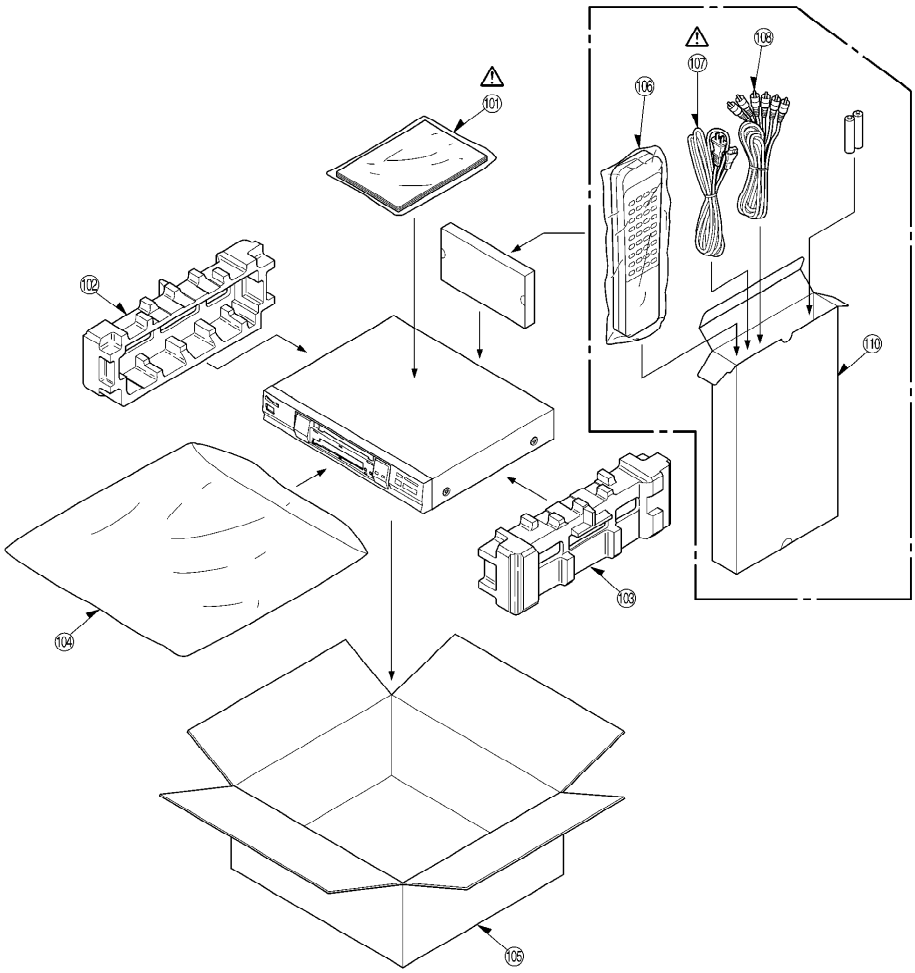
18.2. Loading Mechanism Section Exploded View



18.3. Traverse Section Exploded View



18.4. Packing & Accessories Section Exploded View



19. REPLACEMENT PARTS LIST

19.1. Casing Parts & Mechanism Section Parts List

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1 (1)	VGM1696	TOP COVER	1	
2 (1)	VYK8895	LEG	2	
3 (1)	VEP91252A	POWER SUPPLY C.B.A.	1	(RTL) ⚠
3-1 (1)	EYF52BC	FUSE HOLDER	2	⚠
4 (1)	VEP99144W	MOTHER C.B.A.	1	(RTL)
6 (1)	VMA0F66	REAR PANEL	1	⚠
7 (1)	VMD3854	SPACER(L)	1	
8 (1)	VMD3855	SPACER(R)	1	
9 (1)	VYF2675	TRAY TOP	1	
10 (1)	VKA0339	FOOT RUBBER	2	
11 (1)	VEP96578A	FRONT SWITCH C.B.A.	1	(RTL)
12 (1)	VWJ06A0115BB	6-PIN FLEXIBLE CABLE	1	(FP6401-FP6001)
14-* (1)	VGQ5639	MASK SHEET	1	
18 (1)	VGL0812	HOLDER	1	
25 (1)	VKW2798	FRONT COVER	1	
26 (1)	VYP7729	FRONT PANEL	1	
28 (1)	VEP96572D	MODULE C.B.A.	1	(RTL)
31 (1)	VEP96579A	POWER SWITCH C.B.A.	1	(RTL)
32 (1)	VWJ1395	5-PIN FLEXIBLE CABLE	1	(FP6411-FP6002)
33 (1)	VMA0E29	FRONT ANGLE	1	
B1 (1)	VHD1094	SCREW	4	
B2 (1)	VHD0690	SCREW	3	
B3 (1)	VHD0690	SCREW	10	
B4 (1)	XTV3+8G	SCREW	2	
B5 (1)	XTBS26+10J	SCREW	6	
B6 (1)	XYE3+EF12	SCREW	2	
B7 (1)	XYE3+EF20	SCREW	2	
B8 (1)	XYE3+EF25	SCREW	4	
B9 (1)	XYE3+EF8	SCREW	3	
B11 (1)	XTV3+10G	SCREW	1	

19.2. Loading Mechanism Section Parts List

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
41 (2)	VMD3270	INTERMEDIATE CHASSIS	1	
42 (2)	VMD3265	TRAY	1	
43 (2)	VDG1308	PULLEY GEAR	1	
44 (2)	VDG1309	DECELERATION GEAR	1	
45 (2)	VDG1310	DRIVE GEAR	1	
46 (2)	VDK0156	VERTICAL CAM	1	
47 (2)	VDV0373	BELT	1	
49 (2)	VMD3266	LOADING BASE	1	
50 (2)	VMA0E55-2	CLAMPER BASE	1	
51 (2)	RHM245ZA	MAGNET	1	
53 (2)	VMD3884	CLAMPER	1	
54 (2)	VMA0E54	CLAMPER WEIGHT	1	
55 (2)	VEM0664	LOADING MOTOR UNIT	1	
56 (2)	VSH0170	DOUBLE SWITCH	1	
B41 (2)	VHD1223	SCREW	3	
B42 (2)	XQNQC17+3	SCREW	2	
B43 (2)	XTV3+10G	SCREW	1	
B44 (2)	VHD1330	SCREW	1	
B45 (2)	XTV3+10G	SCREW	2	

19.3. Traverse Section Parts List

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
61 (3)	VWJ1388	SPINDLE FFC	1	(DISC MOTOR-FP2501)
62 (3)	BML3E4CRU	SPINDLE MOTOR	1	
63 (3)	VEM0720	STEPPING MOTOR UNIT	1	
64 (3)	VMB3278	TILT SPRING	2	
65 (3)	VMC1487	SUB-SHAFT TILT SPRING	1	
66 (3)	VMC1606	SPRING HOLDER 1	1	
67 (3)	VMC1607	SPRING HOLDER 2	1	
69 (3)	VMG1166	FLOATING RUBBER	3	
70 (3)	VMK0502	TRAVERSE CHASSIS	1	
71 (3)	VMS6471	GUIDE SHAFT 1	1	
72 (3)	VMS6472	GUIDE SHAFT 2	1	
73 (3)	VED0402-1	OPTICAL PICK-UP	1	⚠
74 (3)	VMC1491	SUB-SHAFT PRELOAD SPRING	1	
75 (3)	VMC1490	SCREW NUT	1	
76 (3)	VMD3260	NUT	1	
B61 (3)	VHD1224	SCREW	5	
B62 (3)	VHD1358	SCREW	3	
B63 (3)	VHD1057	SCREW	1	
B64 (3)	XQNQC17+3	SCREW	1	
B65 (3)	XXE26C6FN	SCREW	3	

19.4. Loading Mechanism Section Parts List

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Psc	Remarks
101 (4)	VQT8633	OPERATING INSTRUCTIONS	1	⚠
102 (4)	VPN5325	CUSHION(L)	1	
103 (4)	VPN5326	CUSHION(R)	1	
104 (4)	VPF0731	POLYETHYLENE BAG	1	
105 (4)	VPG0D99	PACKING CASE	1	
106 (4)	VEQ2380	REMOTE CONTROL UNIT	1	
106-* (4)	TR1122722020	BATTERY COVER	1	
107 (4)	VJA0754	AC CORD	1	⚠
108 (4)	VJA1062	A/V CORD	1	
110 (4)	VPK1891Z	ACCESSORY CASE	1	

19.5. Electrical Parts List

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE: Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified.
All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS (uf), P=uuF.
4. The P.C. Board units marked width "■" show below the main assembled parts.
5. The marking (RTL) indicaters the retention time is limited for this item.
After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP96572D	MODULE C.B.A.	1	(RTL)
■	VEP99144W	MOTHER C.B.A.	1	(RTL)
■	VEP91252A	POWER SUPPLY C.B.A.	1	(RTL) ⚠
■	VEP96578A	FRONT SWITCH C.B.A.	1	(RTL)
■	VEP96579A	POWER SWITCH C.B.A.	1	(RTL)
■		LOADING C.B.A.	1	
■	VEP96572D	MODULE C.B.A.	1	(RTL)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2001	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2002	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2003	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2004	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2005	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2006	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2007	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2012	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C2013	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2014	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2015	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2016	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C2017	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C2018	ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	
C2019	ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	
C2020	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2022	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2023	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C2024	ECUX1H681JCV	C.CAPACITOR CH 50V 680P	1	
C2025	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2026	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2028	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2029	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C2030	ECUX1C183KBV	C.CAPACITOR CH 16V 0.018U	1	
C2031	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C2032	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2033	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2034	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2035	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
C2037	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2038	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2039	ECUX1C393KBV	C.CAPACITOR CH 16V 0.039U	1	
C2040	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C2041	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2042	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2043	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2044	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2045	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2046	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2047	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2048	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2051	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2500	ECEV1CA101W	E.CAPACITOR CH 16V 100U	1	
C2501	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2502	ECEV0JA331P	E.CAPACITOR CH6.3V 330U	1	
C2503	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2504	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2505	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2506	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2507	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2508	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2509	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2513	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2514	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2515	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2516	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2517	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2518	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2521	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2522	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2523	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2524	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2525	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3001	ECEV0JA331P	E.CAPACITOR CH6.3V 330U	1	
C3002	ECEV0JA331P	E.CAPACITOR CH6.3V 330U	1	
C3003	ECEV0JA331P	E.CAPACITOR CH6.3V 330U	1	
C3004	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3005	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3006	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3007	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3008	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3009	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3010	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3011	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3012	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3013	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3014	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3015	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3016	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3017	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3018	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3019	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3020	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3021	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3022	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3023	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3024	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3025	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3026	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3027	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3028	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3029	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3030	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3031	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3032	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3033	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3034	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3035	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3036	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3042	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3043	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3045	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3046	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C3051	ECEV0JA331P	E.CAPACITOR CH6.3V 330U	1	
C3052	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3053	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3054	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3055	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3056	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3057	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3058	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3059	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3060	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3061	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3062	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3063	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3064	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3065	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C3066	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3071	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3072	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3073	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3074	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3075	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C3076	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3081	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3082	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3083	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3084	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3085	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3091	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C3092	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C3093	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3094	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C3095	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3221	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3222	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3223	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3224	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3225	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3226	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3227	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3228	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3229	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3230	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3231	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4201	EEVFC0J152XP	E.CAPACITOR 6.3V 1500U	1	
C4209	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4212	VCS1CU106	T.CAPACITOR CH 16V 10U	1	
C4213	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4214	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C4215	VCS1CU106	T.CAPACITOR CH 16V 10U	1	
C4216	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4217	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4218	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C4221	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4222	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4223	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4224	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4225	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5201	EEVHB0J330R	E.CAPACITOR 6.3V 33U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C5202	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5203	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5204	EEVHB0J330R	E.CAPACITOR 6.3V 33U	1	
C5205	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5211	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C5212	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C5213	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5214	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5215	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5216	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C5217	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5218	ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C5219	ECUX1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C5220	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5221	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5222	ECUV1A474KBV	C.CAPACITOR CH 10V 0.47U	1	
C5223	ECUV1A474KBV	C.CAPACITOR CH 10V 0.47U	1	
C5224	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C5225	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C5226	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5227	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5232	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5233	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C5234	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5241	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5242	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6201	EEVHB0J330R	E.CAPACITOR 6.3V 33U	1	
C6202	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6203	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6204	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6206	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6207	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6208	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6211	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6212	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6251	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C6252	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C6253	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6254	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6255	EEVHB0J330R	E.CAPACITOR 6.3V 33U	1	
C6256	ECEV0JA331P	E.CAPACITOR CH6.3V 330U	1	
C6257	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C6258	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6301	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C6302	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6303	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6304	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6305	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6501	EEVHB0J330R	E.CAPACITOR 6.3V 33U	1	
C6502	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6503	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6504	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C6505	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6506	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6511	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6512	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6513	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6514	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C6515	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C6516	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6517	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6551	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6553	VCS1AS475	T.CAPACITOR CH 10V 4.7U	1	
C7001	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C7002	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C7006	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7011	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7012	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7013	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7014	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7015	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7016	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7017	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7018	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7019	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7020	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7021	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7022	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7023	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7024	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7025	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7026	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
D3091	MA111	DIODE	1	
D6251	MA111	DIODE	1	
D6301	MA728	DIODE	1	
FL6251	VLF1491S105	FILTER	1	
FL6252	VLF1491S105	FILTER	1	
FL6254	VLF1491S105	FILTER	1	
FL6255	VLF1491S104	FILTER	1	
FP2501	VJS4383D017B	CONNECTOR (FEMALE) 17P	1	
FP5201	VJS3913A021	CONNECTOR (FEMALE) 21P	1	
IC2001	MN67706EA	IC	1	
IC2501	AN8480NSB	IC	1	
IC2511	BA5983FM	IC	1	
IC3001	MN677532JA	IC	1	
IC3002	PQ018EZ01ZP	IC	1	
IC3061	MNX7160BT1	IC	1	
IC3071	MNX7160BT1	IC	1	
IC3081	TC4W66FU	IC	1	
IC3091	PQ1R33	IC	1	
IC4211	PCM1600Y	IC	1	
IC5201	AN8707FH	IC	1	
IC6201	MN102H55GFB	IC	1	
IC6251	PQ1R33	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC6301	PST596JNR	IC	1	
IC6302	VUB8011C492	IC	1	
IC6303	AT25020NSI27	IC	1	
IC6501	BU2285FV	IC	1	
IC6551	TK71533SCL	IC	1	
IC7001	MN103S13BGA	IC	1	
K2002	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3001	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3002	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K3003	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K3013	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3014	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3021	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K5231	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K5241	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6251	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
K6301	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6502	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6503	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6504	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6521	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6531	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
L2001	VLQ0860K100	COIL 10UH	1	
L2002	VLQ0910K100	COIL 10UH	1	
L2003	VLQ0910K100	COIL 10UH	1	
L2501	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
L3091	VLQ0860K100	COIL 10UH	1	
L4201	ELJFC390JF	COIL	1	
L4212	MA112	DIODE	1	
L5201	VLQ0860K100	COIL 10UH	1	
L5202	VLQ0910K100	COIL 10UH	1	
L6201	VLP0323A601R	CHIP SOLID INDUCTOR	1	
L6501	VLQ0909J220	COIL 22UH	1	
L6502	VLQ0909J220	COIL 22UH	1	
L7001	VLQ0910K100	COIL 10UH	1	
L7002	VLQ0910K100	COIL 10UH	1	
LA2501	VLP0412A601	CHIP SOLID INDUCTOR	1	
LA2502	VLP0412A601	CHIP SOLID INDUCTOR	1	
LB2509	JALBK2HS470T	COIL	1	
LB2510	JALBK2HS470T	COIL	1	
LB2511	JALBK2HS470T	COIL	1	
LB2512	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB2513	JALBK2HS470T	COIL	1	
LB2514	JALBK2HS470T	COIL	1	
LB2515	JALBK2HS470T	COIL	1	
LB2516	JALBK2HS470T	COIL	1	
LB3201	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB3202	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB3203	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB3204	VLP0323A601R	CHIP SOLID INDUCTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB4001	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4002	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4003	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4004	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4005	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4006	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4007	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
LB4008	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
LB4009	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4010	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4011	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4012	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB4013	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5201	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5202	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5203	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5204	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5205	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5206	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5207	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5208	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5209	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5210	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5211	JALBK2HS470T	COIL	1	
LB5212	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5213	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5214	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB5215	VLP0174	COIL	1	
LB5216	VLP0174	COIL	1	
LB5217	VLP0174	COIL	1	
LB5218	VLP0174	COIL	1	
LB6201	VLP0155	COIL	1	
LB6501	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB6502	VLP0155	COIL	1	
LB6503	VLP0155	COIL	1	
LB6504	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB6505	VLP0155	COIL	1	
LB6506	VLP0323A601R	CHIP SOLID INDUCTOR	1	
LB6507	VLP0155	COIL	1	
LB6551	VLP0323A601R	CHIP SOLID INDUCTOR	1	
PS3201	VJS4222C022B	CONNECTOR (FEMALE) 22P	1	
PS4201	VJS4222C022B	CONNECTOR (FEMALE) 22P	1	
PS6201	VJS2961A010	CONNECTOR (FEMALE) 10P	1	
Q3081	2SB1218A-R	TRANSISTOR	1	
Q3082	2SB1218A-R	TRANSISTOR	1	
Q3083	2SB1218A-R	TRANSISTOR	1	
Q3084	2SB1218A-R	TRANSISTOR	1	
Q5201	2SB1115-T	TRANSISTOR	1	
QR2001	UN5213	TRANSISTOR-RESISTOR	1	
QR4211	UN5212	TRANSISTOR-RESISTOR	1	
QR5201	UN5212	TRANSISTOR-RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR5231	UN2121	TRANSISTOR-RESISTOR	1	
QR6301	UN5212	TRANSISTOR-RESISTOR	1	
R2001	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2002	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2003	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2004	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2005	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2006	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2007	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2008	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2009	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2010	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2011	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2012	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2013	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2014	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2017	ERJ3GEYF153	M.RESISTOR CH 1/16W 15K	1	
R2018	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2020	ERJ3GEYF123	M.RESISTOR CH 1/16W 12K	1	
R2021	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2022	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2023	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2024	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2025	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2026	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R2027	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2028	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2029	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R2030	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2031	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2032	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2033	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2034	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2501	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R2502	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R2503	ERJ14YKR39	M.RESISTOR CH 1/4W 0.39	1	
R2505	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2511	ERJ3GEYJ203	M.RESISTOR CH 1/16W 20K	1	
R2512	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2513	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R2514	ERJ3GEYJ203	M.RESISTOR CH 1/16W 20K	1	
R2515	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2516	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R2517	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2518	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2519	ERJ3GEYJ752	M.RESISTOR CH 1/16W 7.5K	1	
R2520	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2521	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2522	ERJ3GEYJ752	M.RESISTOR CH 1/16W 7.5K	1	
R3001	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R3002	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3003	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3004	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3005	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3051	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3052	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3055	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3057	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R3058	ERJ3RBD432	M.RESISTOR CH 1/16W 4.3K	1	
R3059	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3060	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3061	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3071	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3081	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3082	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3083	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3084	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3085	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3086	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3087	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3088	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3089	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3090	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3091	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3092	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4202	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4211	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R5201	ERJ12YJ270	M.RESISTOR CH 1/2W 27	1	
R5202	ERJ3GEYJ2R2	M.RESISTOR CH 1/16W 2.2	1	
R5203	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R5204	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5206	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R5207	ERJ3GEYF562	M.RESISTOR CH 1/16W 5.6K	1	
R5208	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R5209	ERJ3GEYF303	M.RESISTOR CH 1/16W 30K	1	
R5210	ERJ3GEYF473	M.RESISTOR CH 1/16W 47K	1	
R5211	ERJ3GEYF183	M.RESISTOR CH 1/16W 18K	1	
R5212	ERJ3GEYF562	M.RESISTOR CH 1/16W 5.6K	1	
R5213	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5214	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R5215	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R5216	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R5217	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6201	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6208	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6209	ERJ3GEYF151	M.RESISTOR CH 1/16W 150	1	
R6210	ERJ3GEYF471	M.RESISTOR CH 1/16W 470	1	
R6211	ERJ3GEYF391	M.RESISTOR CH 1/16W 390	1	
R6212	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6213	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6214	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6301	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6302	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6303	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6502	ERJ3RBD221	M.RESISTOR CH 1/16W 220	1	
R6503	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6504	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7001	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R7002	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
RA2001	EXBV8VR000	RESISTOR-RESISTOR	1	
RA2501	EXBV4V103J	RESISTOR-RESISTOR	1	
RA3008	EXBV4V103J	RESISTOR-RESISTOR	1	
RA3009	EXBV4V221J	RESISTOR-RESISTOR	1	
RA3010	EXBV4V221J	RESISTOR-RESISTOR	1	
RA3011	EXBV4V473J	RESISTOR-RESISTOR	1	
RA5201	EXBV4V101J	RESISTOR-RESISTOR	1	
RA6201	EXBV4V103J	RESISTOR-RESISTOR	1	
RA6202	EXBV4V473J	RESISTOR-RESISTOR	1	
RA6203	EXBV4V473J	RESISTOR-RESISTOR	1	
RA6204	EXBV4V103J	RESISTOR-RESISTOR	1	
RA6205	EXBV8V473J	RESISTOR-RESISTOR	1	
RA6206	EXBV4V473J	RESISTOR-RESISTOR	1	
RA7001	EXBV8V473J	RESISTOR-RESISTOR	1	
RA7002	EXBV8V473J	RESISTOR-RESISTOR	1	
RA7003	EXBV8V473J	RESISTOR-RESISTOR	1	
W3221	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
X6501	VSX1044	CRYSTAL OSCILLATOR	1	
■	VEP99144W	MOTHER C.B.A.	1	(RTL)
C2591	ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C2592	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3500	ECA0JM471	E.CAPACITOR 6.3V 470U	1	
C3501	ECA0JM221	E.CAPACITOR 6.3V 220U	1	
C3502	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3503	ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C3504	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3505	ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C3506	ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C3507	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3508	ECA0JM471	E.CAPACITOR 6.3V 470U	1	
C3509	ECA0JM471	E.CAPACITOR 6.3V 470U	1	
C3511	ECA0JM102	E.CAPACITOR 6.3V 1000U	1	
C3512	ECA0JM102	E.CAPACITOR 6.3V 1000U	1	
C3513	ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C3514	ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C3515	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3536	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3551	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3552	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4321	ECA1CAK220X	E.CAPACITOR 16V 22U	1	
C4322	ECQB1H102JZ	P.CAPACITOR 50V 1000P	1	
C4323	ECQB1H101JZ	C.CAPACITOR 50V 100U	1	
C4325	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4328	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4329	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4331	ECA1CAK220X	E.CAPACITOR 16V 22U	1	
C4332	ECQB1H102JZ	P.CAPACITOR 50V 1000P	1	
C4333	ECQB1H101JZ	C.CAPACITOR 50V 100U	1	
C4335	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4341	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4342	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4343	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C4345	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4351	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4352	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4353	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C4355	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4356	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4357	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4361	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4362	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4363	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C4365	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4371	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4372	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4373	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4374	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C4375	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C4376	ECA1ANK470X	E.CAPACITOR 10V 47U	1	
C4377	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4378	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4379	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4380	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4441	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4442	ECA1CAK470X	E.CAPACITOR 16V 47U	1	
C4443	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4444	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4451	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4452	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4501	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4511	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4521	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4531	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4541	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4551	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4561	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4571	ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4581	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4582	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4584	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4585	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4586	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4592	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4751	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4753	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4761	ECUM1H271JCN	C.CAPACITOR CH 50V 270P	1	
C4763	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4764	ECEA1HKA4R7	E.CAPACITOR 50V 4.7U	1	
C4771	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4772	ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C4773	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C4774	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4781	ECEA1HKA4R7	E.CAPACITOR 50V 4.7U	1	
C4782	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4901	VCEA1CJC470	E.CAPACITOR 16V 47U	1	
C4902	ECA1CAK101X	E.CAPACITOR 16V 100U	1	[SUPPLIED FROM MBV]
C4911	VCEA1EJC221	E.CAPACITOR 25V 220U	1	
C4912	VCEA1CJC470	E.CAPACITOR 16V 47U	1	
C4913	ECA1CAK101X	E.CAPACITOR 16V 100U	1	[SUPPLIED FROM MBV]
C6001	ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C6002	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6003	ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C6004	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6005	ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C6007	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6008	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6009	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6010	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6011	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6012	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6013	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
D4596	MA3047M	ZENER DIODE	1	
D4901	AK04WS	DIODE	1	
D6013	LN28RCPL	DIODE	1	
D6014	LN38GCPL	DIODE	1	
DL6001	VSL0537	DISPLAY TUBE	1	
FP6001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
FP6002	VJS3537A005G	CONNECTOR (FEMALE) 5P	1	
IC2591	BA6956AN	IC	1	
IC3511	ML6427	IC	1	
IC4321	NJM4580M	IC	1	
IC4341	NJM4580M	IC	1	
IC4361	NJM4580M	IC	1	
IC4362	NJM4580M	IC	1	
IC4441	NJM4580M	IC	1	
IC4451	NJM4580M	IC	1	
IC4751	AHCT1G08DBV	IC	1	
IC4752	AHCT1G08DBV	IC	1	
IC4781	GP1FA551TZ	IC	1	
IC4901	PQ09DZ1U	IC	1	
IC6001	MN101C35DCC	IC	1	
IC6002	PST9327UR	IC	1	
IC6003	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6004	TC7ST08F	IC	1	
IC6005	TC7ST08F	IC	1	
JK3531	VJJ0561	Y/C CONNECTOR	1	
JK3532	VJJ0598	PIN JACK (3P)	1	
JK4501	VJJ0594	PIN JACK (6P)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
JK4502	VJJ0592	PIN JACK (4P)	1	
JK4771	VJJ0590	PIN JACK (1P)	1	
K3511	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K3552	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4752	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6005	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6015	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6021	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6022	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
L3501	ELESE220JA	INDUCTOR 22UH	1	
L4761	ELJNDR10JF	COIL	1	
L4781	ELESE220JA	INDUCTOR 22UH	1	
L6001	VLQEL05S101J	COIL 100UH	1	
L6002	VLQEL05S221J	COIL 220UH	1	
LB3533	VLP0145	COIL	1	
LB3534	VLP0145	COIL	1	
LB3535	VLP0145	COIL	1	
LB3536	VLP0145	COIL	1	
LB3537	VLP0145	COIL	1	
LB3538	VLP0145	COIL	1	
LB3539	VLP0145	COIL	1	
LB4501	VLP0145	COIL	1	
LB4511	VLP0145	COIL	1	
LB4521	VLP0145	COIL	1	
LB4531	VLP0145	COIL	1	
LB4541	VLP0145	COIL	1	
LB4551	VLP0145	COIL	1	
LB4561	VLP0145	COIL	1	
LB4571	VLP0145	COIL	1	
LB4771	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4772	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6003	VLP0153	COIL	1	
LB6004	VLP0153	COIL	1	
LB6005	VLP0153	COIL	1	
LB6010	VLP0153	COIL	1	
PP1101	VJP4368A018B	CONNECTOR (MALE) 18P	1	
PP2591	VJP4366A005B	CONNECTOR (MALE) 5P	1	
PP3201	VJP4370E022B	CONNECTOR (MALE) 22P	1	
PP4201	VJP4370E022B	CONNECTOR (MALE) 22P	1	
PR4911	VSF0015A10	FUSE	1	⚠
Q3501	2SD601A	TRANSISTOR	1	
Q4501	2SD1328	TRANSISTOR	1	
Q4511	2SD1328	TRANSISTOR	1	
Q4521	2SD1328	TRANSISTOR	1	
Q4531	2SD1328	TRANSISTOR	1	
Q4541	2SD601A	TRANSISTOR	1	
Q4551	2SD601A	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q4561	2SD601A	TRANSISTOR	1	
Q4571	2SD601A	TRANSISTOR	1	
Q4901	2SB709A	TRANSISTOR	1	
Q4911	2SB1434R	TRANSISTOR	1	
Q4912	2SB1320A-R	TRANSISTOR	1	
Q4913	2SD601A	TRANSISTOR	1	
Q4918	2SD1328	TRANSISTOR	1	
Q4919	2SD1328	TRANSISTOR	1	
Q4920	2SD1328	TRANSISTOR	1	
Q6009	2SD1996-R	TRANSISTOR	1	
QR3521	UN2211	TRANSISTOR	1	
QR4593	UN2211	TRANSISTOR	1	
QR4594	UN2111	TRANSISTOR	1	
QR4596	UN2111	TRANSISTOR	1	
QR4916	UN2111	TRANSISTOR	1	
QR4917	UN2211	TRANSISTOR	1	
QR6009	DTA123JK	TRANSISTOR	1	
QR6011	DTA123JK	TRANSISTOR	1	
R2591	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2592	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2593	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2594	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3501	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3502	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3507	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3511	ERJ6ENF1001	M.RESISTOR CH 1/10W 1K	1	
R3512	ERJ6ENF1001	M.RESISTOR CH 1/10W 1K	1	
R3521	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3526	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3533	ERJ6ENF75R0	M.RESISTOR CH 1/10W 75	1	
R3534	ERJ6ENF75R0	M.RESISTOR CH 1/10W 75	1	
R3535	ERJ6ENF71R5	M.RESISTOR CH 1/10W 71.5	1	
R3536	ERJ6ENF71R5	M.RESISTOR CH 1/10W 71.5	1	
R3537	ERJ6ENF75R0	M.RESISTOR CH 1/10W 75	1	
R3538	ERJ6ENF75R0	M.RESISTOR CH 1/10W 75	1	
R3539	ERJ6ENF75R0	M.RESISTOR CH 1/10W 75	1	
R4309	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4319	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4321	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4322	ERA6YED392	M.RESISTOR CH 1/10W 3.9K	1	
R4323	ERA6YED103	M.RESISTOR CH 1/10W 10K	1	
R4324	ERA6YED822	M.RESISTOR CH 1/10W 8.2K	1	
R4327	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4331	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4332	ERA6YED392	M.RESISTOR CH 1/10W 3.9K	1	
R4333	ERA6YED103	M.RESISTOR CH 1/10W 10K	1	
R4334	ERA6YED822	M.RESISTOR CH 1/10W 8.2K	1	
R4338	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4341	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4342	ERJ6GMYJ302	M.RESISTOR CH 1/10W 3K	1	
R4343	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4344	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4347	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4351	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4352	ERJ6GMYJ302	M.RESISTOR CH 1/10W 3K	1	
R4353	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4354	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4357	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4361	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4362	ERJ6GMYJ302	M.RESISTOR CH 1/10W 3K	1	
R4363	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4364	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4366	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4367	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4369	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4371	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4372	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4373	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4374	ERJ6GMYJ362	M.RESISTOR CH 1/10W 3.6K	1	
R4375	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4376	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4377	ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4378	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4441	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4442	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4443	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4444	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4445	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4446	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4447	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4448	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4449	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4451	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4452	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4453	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4454	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4455	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4456	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4457	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4501	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4502	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4503	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4511	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4512	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4513	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4521	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4522	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4523	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4531	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4532	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4533	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4541	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4542	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4543	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4551	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4552	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4553	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4561	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4562	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4563	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4571	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4572	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4573	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4590	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4594	ERJ8GEYJ102	M.RESISTOR CH 1/8W 1K	1	
R4596	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4598	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4599	ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R4600	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4761	ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R4771	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R4901	ERJ6RBD822	M.RESISTOR CH 1/10W 8.2K	1	
R4902	ERJ6RBD152	M.RESISTOR CH 1/10W 1.5K	1	
R4903	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4911	ERJ6RBD822	M.RESISTOR CH 1/10W 8.2K	1	
R4912	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4913	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4914	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4915	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R4916	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R4917	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R4918	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4919	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4920	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4921	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4923	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6001	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6002	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6010	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6011	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6012	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6013	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6014	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6015	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6016	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6017	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6018	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6019	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6020	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6021	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6022	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6032	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6033	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6034	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6035	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6036	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6038	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6041	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6044	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R6047	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
T4761	VLQ0790	TRANSFORMER	1	⚠
W701	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W702	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W703	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W704	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W705	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W706	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W707	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W708	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W709	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W710	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W711	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W713	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W714	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W715	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
W716	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
X6001	EF0EC8004A4	CERAMIC OSCILLATOR	1	
ZA3501	VJR0978	EARTH ANGLE	1	
ZA4201	VJR0978	EARTH ANGLE	1	
ZA4751	VJR0978	EARTH ANGLE	1	
ZA4752	VMC1446	EARTH SPRING	1	
ZA6001	VJR0978	EARTH ANGLE	1	
		MISCELLANEOUS		
	VYQ1654	FL HOLDER UNIT	1	
■	VEP91252A	POWER SUPPLY C.B.A.	1	(RTL) ⚠
C1001	VCF0183M104	POLYESTER FILM CAPACITOR	1	⚠
C1002	VCF0183M104	POLYESTER FILM CAPACITOR	1	⚠
C1003	VCK0286B471	CERAMIC CAPACITOR	1	⚠
C1004	VCK0286B471	CERAMIC CAPACITOR	1	⚠
C1005	VCK0286E102	CERAMIC CAPACITOR	1	⚠
C1013	ECEC2GG680	E.CAPACITOR 400V 68U	1	
C1021	VCK0106K221	CERAMIC CAPACITOR	1	
C1031	VCK0266K182	CERAMIC CAPACITOR	1	
C1041	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C1051	ECQB1H104JF	P.CAPACITOR 50V 0.1U	1	
C1052	ECQB1H683JF	P.CAPACITOR 50V 0.068U	1	
C1053	ECQB1H104JF	P.CAPACITOR 50V 0.1U	1	
C1061	VCEA0JJC470	E.CAPASITOR 6.3V 47U	1	
C1101	ECQV1H104JL	P.CAPACITOR 50V 0.1U	1	
C1102	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C1111	VCEA1AJH102	E.CAPASITOR 10V 1000U	1	[SUPPLIED FROM MAV]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1112	VCEA1AJC102	E.CAPASITOR 10V 1000U	1	[SUPPLIED FROM MAV]
C1115	ECFR1E104ZF5	C.CAPASITOR 25V 0.1U	1	
C1116	VCEA1AJC221	E.CAPACITOR 10V 220U	1	
C1117	ECA1APX221B	E.CAPACITOR 10V 220U	1	
C1121	VCEA1AJH102	E.CAPASITOR 10V 1000U	1	[SUPPLIED FROM MAV]
C1122	VCEA1AJC102	E.CAPASITOR 10V 1000U	1	[SUPPLIED FROM MAV]
C1125	ECA0JM102	E.CAPACITOR 6.3V 1000U	1	
C1131	VCEA1VJH151	E.CAPACITOR 35V 150U	1	
C1133	VCEA1EJC330	E.CAPACITOR 25V 33U	1	
C1141	VCEA1VJH151	E.CAPACITOR 35V 150U	1	
C1143	VCEA1EJC330	E.CAPACITOR 25V 33U	1	
C1151	VCEA1EJH271	E.CAPACITOR 25V 270U	1	
C1153	VCEA1EJC221	E.CAPACITOR 25V 220U	1	
C1154	VCEA1CJC221	E.CAPACITOR 16V 220U	1	
C1161	VCEA1HJH560	E.CAPACITOR 50V 56U	1	
C1171	VCEA1AJH181	E.CAPACITOR 10V 180U	1	
D1002	ENC471D5ATRB	DIODE	1	⚠
D1011	S1WBA80	DIODE	1	⚠
D1031	AP01C	DIODE	1	⚠
D1041	AU01Z	DIODE	1	
D1051	1SS254	DIODE	1	
D1052	1SS254	DIODE	1	
D1053	MA4022-LTA	DIODE	1	
D1101	MA7075A	DIODE	1	
D1111	21DQ06FC4	DIODE	1	
D1121	21DQ06FC4	DIODE	1	
D1126	11ES1	DIODE	1	
D1131	11EQS10	DIODE	1	
D1132	MA7180A-TR	DIODE	1	
D1141	11EQS10	DIODE	1	
D1151	11EQS10	DIODE	1	
D1152	11EQS10	DIODE	1	
D1161	AU01Z	DIODE	1	
D1162	MA4030	DIODE	1	
D1171	AK04	DIODE	1	
F1001	XBA2C16TB0	FUSE	1	⚠
IC1101	UPC1093J	IC	1	
IC1125	PQ07RX11	IC	1	
IC1151	SI-3090FLF11	IC	1	
L1001	ELF15N005A	NOISE FILTER	1	⚠
L1002	ELF15N005A	NOISE FILTER	1	⚠
L1111	VLQ0655K100	COIL 10UH	1	
L1115	ELELN100KA	INDUCTOR 10UH	1	
L1131	VLQEL05S330K	COIL 33UH	1	
L1141	VLQEL05S330K	COIL 33UH	1	
L1151	VLQ0611K220	COIL 22UH	1	
LB1021	VLP0056	COIL	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LR1041	VLP0392	COIL	1	
P1001	SJS9236	AC INLET	1	⚠
PR1161	VSF0015A025	IC PROTECTOR	1	⚠
PR1171	VSF0015A10	FUSE	1	⚠
PS1101	VJS4223A018	CONNECTOR (FEMALE) 18P	1	
Q1021	2SC4908LF654	TRANSISTOR	1	
Q1051	PS2561L1	PHOTO COUPLER	1	⚠
Q1052	2SD1996-S	TRANSISTOR	1	
Q1061	2SD1996-S	TRANSISTOR	1	
Q1062	2SC3311A-S	TRANSISTOR	1	
Q1063	2SD1996-S	TRANSISTOR	1	
Q1115	2SJ525	TRANSISTOR	1	
QR1115	UN4213	TRANSISTOR	1	
R1002	ERC12AGM334	S.RESISTOR 330K	1	⚠
R1031	ERDS2FJ224	C.RESISTOR 1/4W 220K	1	
R1032	ERDS2FJ224	C.RESISTOR 1/4W 220K	1	
R1041	ERDS2TJ334	C.RESISTOR 1/4W 330K	1	
R1042	ERG2SJ680	M.RESISTOR 2W 68	1	
R1043	ERDS2TJ334	C.RESISTOR 1/4W 330K	1	
R1051	ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R1052	ERDS2TJ2R2	C.RESISTOR 1/4W 2.2	1	
R1053	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R1054	ER0S2CKG6800	M.RESISTOR 1/4W 680	1	
R1061	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1062	ERDS2TJ105	C.RESISTOR 1/4W 1M	1	
R1063	ERDS2TJ105	C.RESISTOR 1/4W 1M	1	
R1064	ERDS2TJ183	C.RESISTOR 1/4W 18K	1	
R1065	ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R1066	ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R1101	ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R1102	ER0S2CKF1201	M.RESISTOR 1/4W 1.2K	1	
R1103	ER0S2CKF1201	M.RESISTOR 1/4W 1.2K	1	
R1104	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1105	ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R1106	ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R1107	ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R1115	ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R1116	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1125	ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R1126	ER0S2CKF1201	M.RESISTOR 1/4W 1.2K	1	
R1127	ER0S2CKF1201	M.RESISTOR 1/4W 1.2K	1	
R1161	ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R1181	ERDS2TJ101	C.RESISTOR 1/4W 100	1	
T1021	ETS29AS116AC	TRANSFORMER	1	⚠
ZA1001	EYF52BC	FUSE HOLDER	1	⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
ZA1002	EYF52BC	FUSE HOLDER	1	⚠
ZA1021	TUC25628	HEAT SINK	1	
ZA1111	VJR0978	EARTH ANGLE	1	
ZA1125	TUC25625	HEAT SINK	1	
■	VEP96579A	POWER SWITCH C.B.A.	1	(RTL)
FP6401	VJS3537B006G	CONNECTOR (FEMALE) 6P	1	
R6401	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R6402	ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R6403	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R6404	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R6405	ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R6406	ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
S6401	EVQ11G07K	SWITCH	1	
S6402	EVQ11G07K	SWITCH	1	
S6403	EVQ11G07K	SWITCH	1	
S6404	EVQ11G07K	SWITCH	1	
S6405	EVQ11G07K	SWITCH	1	
S6406	EVQ11G07K	SWITCH	1	
S6407	EVQ11G07K	SWITCH	1	
S6409	EVQ11G07K	SWITCH	1	
		MISCELLANEOUS		
.	VWJ06A0115BB	FLAT CARD CABLE	1	
■	VEP96579A	POWER SWITCH C.B.A.	1	(RTL)
FP6411	VJS3537B005G	CONNECTOR (FEMALE) 5P	1	
S6411	EVQ11G07K	SWITCH	1	
		MISCELLANEOUS		
.	VWJ1439	FLAT CARD CABLE	1	
■		LOADING C.B.A.	1	
PS2591	VJS4366A005B	CONNECTOR (MALE) 5P	1	

MODULE C.B.A.

Transistors			IC3091	D-8	F	TP6207	D-1	F
Q3081	E-8	F	IC3201	D-3	C	TP6208	D-1	F
Q3082	E-8	F	IC4201	E-2	F	TP6209	D-1	F
Q3083	E-8	F	IC4211	E-3	F	TP6210	C-1	F
Q3084	E-7	F	IC5201	B-6	C	TP6251	F-8	F
Q3211	E-8	F	IC6201	C-8	C	TP6252	F-8	F
Q5201	A-7	C	IC6251	E-9	F	TP6253	F-9	F
Transistor-resistors			IC6301	D-2	F	TP6254	E-8	F
QR2001	C-4	F	IC6302	D-2	F	TP6255	E-8	F
QR4211	E-8	C	IC6303	D-2	F	TP6256	E-8	F
QR5201	B-7	C	IC6501	E-4	F	TP6257	E-8	F
QR5231	A-3	F	IC6551	E-3	F	TP6258	E-8	F
QR6301	D-8	C	IC7001	D-7	C	TP6259	F-9	F
Integrated Circuits			**Test Points**			TP6501	E-4	F
IC2001	C-4	F	TP5207	C-3	F	**Connectors**		
IC2501	C-9	F	TP5208	B-3	F	FP2501	C-5	F
IC2511	C-8	F	TP6201	E-1	F	FP5201	A-6	F
IC3001	E-5	F	TP6202	D-1	F	PS3201	F-8	F
IC3002	D-9	F	TP6203	D-1	F	PS4201	F-3	F
IC3061	E-5	C	TP6204	D-1	F	PS6201	E-7	C
IC3071	F-5	C	TP6205	C-1	F			
IC3081	E-4	C	TP6206	D-1	F			

ADDRESS INFORMATION
C ... COMPONENT SIDE
F ... FOIL SIDE

MOTHER C.B.A.

Transistors			Q4918	C-6		QR6011	E-2	IC6004	F-2
Q3501	B-3		Q4919	C-6		**Integrated Circuits**		IC6005	F-2
Q4302	B-4		Q4920	C-6		IC2591	F-1	**Connectors**	
Q4303	B-4		Q4921	C-6		IC3511	B-2	FP6001	F-5
Q4312	B-4		Q6009	D-1		IC4306	B-4	FP6002	E-1
Q4313	B-4		**Transistor-resistors**			IC4321	C-5	PP1101	B-1
Q4501	A-4		QR3521	C-3		IC4322	B-4	PP2591	F-1
Q4502	B-3		QR3522	C-3		IC4341	C-6	PP3201	C-1
Q4511	A-4		QR4301	C-3		IC4361	C-6	PP3801	A-2
Q4512	B-3		QR4311	B-3		IC4362	B-6	PP4201	C-4
Q4521	A-5		QR4521	C-3		IC4441	B-5	JK3531	A-3
Q4531	A-5		QR4591	D-2		IC4451	B-5	JK3532	A-1
Q4541	A-5		QR4592	D-2		IC4471	C-5	JK4501	A-4
Q4551	A-5		QR4593	D-2		IC4751	B-6	JK4502	A-6
Q4561	A-6		QR4594	D-2		IC4752	B-6	JK4771	A-6
Q4571	A-6		QR4595	D-2		IC4781	A-6		
Q4901	E-6		QR4596	D-3		IC4901	E-6		
Q4911	D-6		QR4916	C-3		IC4902	E-5		
Q4912	D-6		QR4917	C-3		IC4911	E-5		
Q4913	D-6		QR6001	E-4		IC6001	F-3		
Q4914	C-5		QR6002	E-4		IC6002	E-3		
Q4915	C-5		QR6010	E-2		IC6003	F-1		

ADDRESS INFORMATION

ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
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MAIN SIGNAL PATH

IC2001
MN67706EA
(DSC)

IC2514
BA5983FM-E2
(MOTOR DRIVE)

IC2501 AN8480NSB
(SPINDLE MOTOR DRIVE)

TO
SPINDLE
MOTOR UNIT
FP2501

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

VO SECTION: Page 50, AOUT1 SECTION: Page 51, AOUT2 SECTION: Page 52, OP SECTION: Page 53

AUDIO SIGNAL

VO NSW+5V
OP POWERMUT
OP MICMUT
OP GAINSEL
OP MIXOUT
MUT AOUT2
-5V AOUT2
+9V OP/AOUT2
-9V OP/AOUT2
FMIXLOUT AOUT2
FMIXROUT AOUT2
FLOUT AOUT2
FROUT AOUT2
SLOUT AOUT2
SROUT AOUT2
CNTOUT AOUT2
SWOUT AOUT2
DSPCLK OP
STATUS OP
CMD OP
ADIGITAL AOUT2
VO NSW+12V
OP POWER-OFF(L)
VO AGND
VO NSW-11V

RV20K, RV40K only
RV40K only
Except RV20K, RV40K
RV40 only
RV30, RV20 only

PP4201

14	FR	FR	22
13	AGND	AGND	21
12	FL	FL	20
11	AGND	AGND	19
10	ZFLAG	ZFLAG	18
9	AMUT	AMUT	17
8	AGND	AGND	16
		DACMUT	15
		SR	14
		AGND	13
		SL	12
		AGND	11
		SW	10
		AGND	9
		CNT	8
7	AGND	AGND	7
6	DSPCLK	DSPCLK	6
5	DGND	DGND	5
4	STATUS	STATUS	4
3	CMD	CMD	3
2	DGND	DGND	2
1	AUDIODIGTAL	AUDIODIGTAL	1

(RV30, RV20) (RV40)

TO PS4201
MODULE C.B.A.
(AUDIO)

AC3

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SAME TYPE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

AUDIO SIGNAL

AC3
RV40 only
IC4451 * NJM4580M-T1
IC4441 NJM4580M-T1
Except RV40
Europe model only
RV20K, RV40K only
RV30U/CA, RV20EC/EB/EG only
SW(0.1ch)
IC4471 *NJM4558M-T1
(L MUTE)
(R MUTE)
(L1 MUTE)
(L2 MUTE)
(R1 MUTE)
(R2 MUTE)
(SL MUTE)
(SR MUTE)
(CNT MUTE)
(SW MUTE)
Japan model only
RV40, RV60 only
RV30, RV20 only
JK4501 VJJ0692
JK4502 VJJ0591
NJ4502
S4501
* ESD177211
K4751 *0
K4752 0
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

AUDIO SIGNAL

IC3001-92
6.4Vp-p(10usec./div.)
IC3001

IC4201
(AUDIO D/A CONVERTER)

IC4211
(5.1CH AUDIO D/A CONVERTER)

AOUT0 92
SRCK 90
LRCK 89
AOUT1 93
AOUT2 94
IEC OUT 85

MIXL
MIXR
STBDAC FROM IC6201-57PIN
SBT1 FROM IC6201-70PIN
SBO1 FROM IC6201-72PIN
NRST FROM IC6201-79PIN

FL
FR
SL
SR
CNT
SW

IC4321 AMP
IC4341 AMP
IC4361 AMP
IC4362 AMP

IC4306 AMP
IC4322 AMP
IC4441 AMP
IC4451 AMP
IC4471 AMP

RV40K ONLY
RV40 ONLY
EXCEPT RV40
RV30U/CA,RV20EC/EB/EG ONLY

A MUT FROM IC6201-53PIN

Lch OUT
Rch OUT
FL OUT
FR OUT
SL OUT
SR OUT
CNT OUT
SW OUT

0.7Vp-p(0.5msec./div.)
IC4211-13,14
0.6Vp-p(0.5msec./div.)

IC4781
DIGITAL AUDIO OUT
OPTICAL

IC4752
IC4751
T4761
JK4771
DIGITAL AUDIO OUT
COAXIAL

RV40 ONLY

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AUDIO SIGNAL

IC4201 *PCM1746-E2 (AUDIO DAC)

IC4211 *PCM1600Y (5.1ch Audio D/A Converter)

IC6501 BU2285FV

IC6551 TK71533SCL

TO PP4201 MOTHER C.B.A. (AOUT) PS4201

22	FR	14	FR
21	AGND	13	AGND
20	FL	12	FL
19	AGND	11	AGND
18	ZFLAG	10	ZFLAG
17	AMUT	9	AMUT
16	AGND	8	AGND
15	DACMUT		
14	SR		
13	ANGD		
12	SL		
11	AGND		
10	SW		
9	AGND		
8	CNT		
7	AGND	7	AGND
6	DSPCLK	6	DSPCLK
5	DGND	5	DGND
4	STATUS	4	STATUS
3	CMD	3	CMD
2	DGND	2	DGND
1	AUDIODIGTAL	1	AUDIODIGTAL
(RV40)		(RV30) (RV20)	

RV60U/CA, RV40 only

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
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VIDEO SIGNAL
AUDIO SIGNAL

IC3061
MNX7160BT1
or KM416S1DTG8 or HY57V16DTC8
(16M-SDRAM)

IC3071
*MNX7160BT1
or KM416S1DTG8 or HY57V16DTC8
(16M-SDRAM)
PAL model only

IC3001
MN677532JA
(AV DECORDER)

IC3002 PQ018EZ01ZP

IC6251 PQ1R33

IC3091 PQ1R33

IC3081 TC4W66FUTL

TO PP3201 MOTHER C.B.A. (VOUT) PS3201 (RV40) (RV30-U/CA, -PM, -PX)

1	NC	1	(R)
2	VGND	2	VGND
3	CB	3	(B)
4	VGND	4	VGND
5	Y	5	Y
6	VGND	6	VGND
7	M+9V	7	M+9V
8	MGND	8	MGND
9	D+5V	9	D+5V
10	DGND	10	DGND
11	D+2.5V	11	D+2.5V(3.3V)
12	DGND	12	DGND
13	D+2.5V	13	D+2.5V
14	DGND	14	DGND
15	A+5V	15	A+5V
16	AGND	16	AGND
17	C	17	C
18	VGND	18	VGND
19	CR	19	NC(SCLOCK)
20	NC	20	NC(SDATA)
21	VGND	21	VGND
22	NC	22	(G)

PS3201 (RV40-EC/EG/EB) (RV40-EU, -A) (RV20-EC/EG/EB, -A)

1	Y	
2	VGND	
3	M+9V	
4	MGND	
5	D+5V	
6	DGND	
7	D+2.5V(3.3V)	
8	DGND	
9	D+2.5V	
10	DGND	
11	A+5V	
12	AGND	
13	C	
14	VGND	

PS3201 (RV20-EN)

1	Y	
2	VGND	
3	M+9V	
4	MGND	
5	D+5V	
6	DGND	
7	D+2.5V(3.3V)	
8	DGND	
9	D+2.5V	
10	DGND	
11	A+5V	
12	AGND	
13	C	
14	VGND	

	RV40-EC/EG/EB	RV20-EC/EG/EB	RV40	RV30-U/CA	RV20-EN
LB3203	×	×	○	○	×
LB3204	×	×	○	×	×
LB3205	○	○	×	×	×
LB3206	○	○	×	×	×
LB3207 LB3208	×	×	×	×	×

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ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
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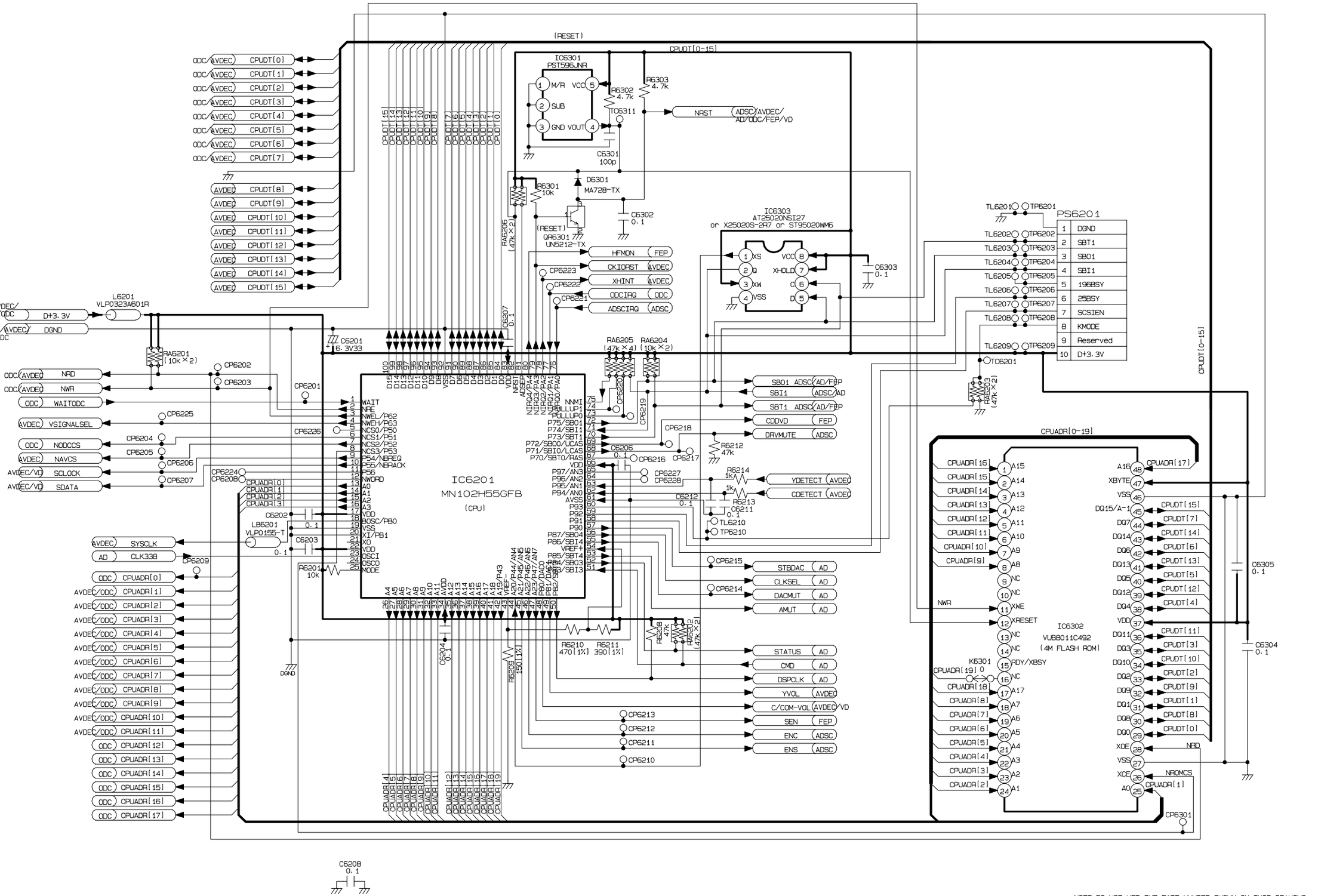

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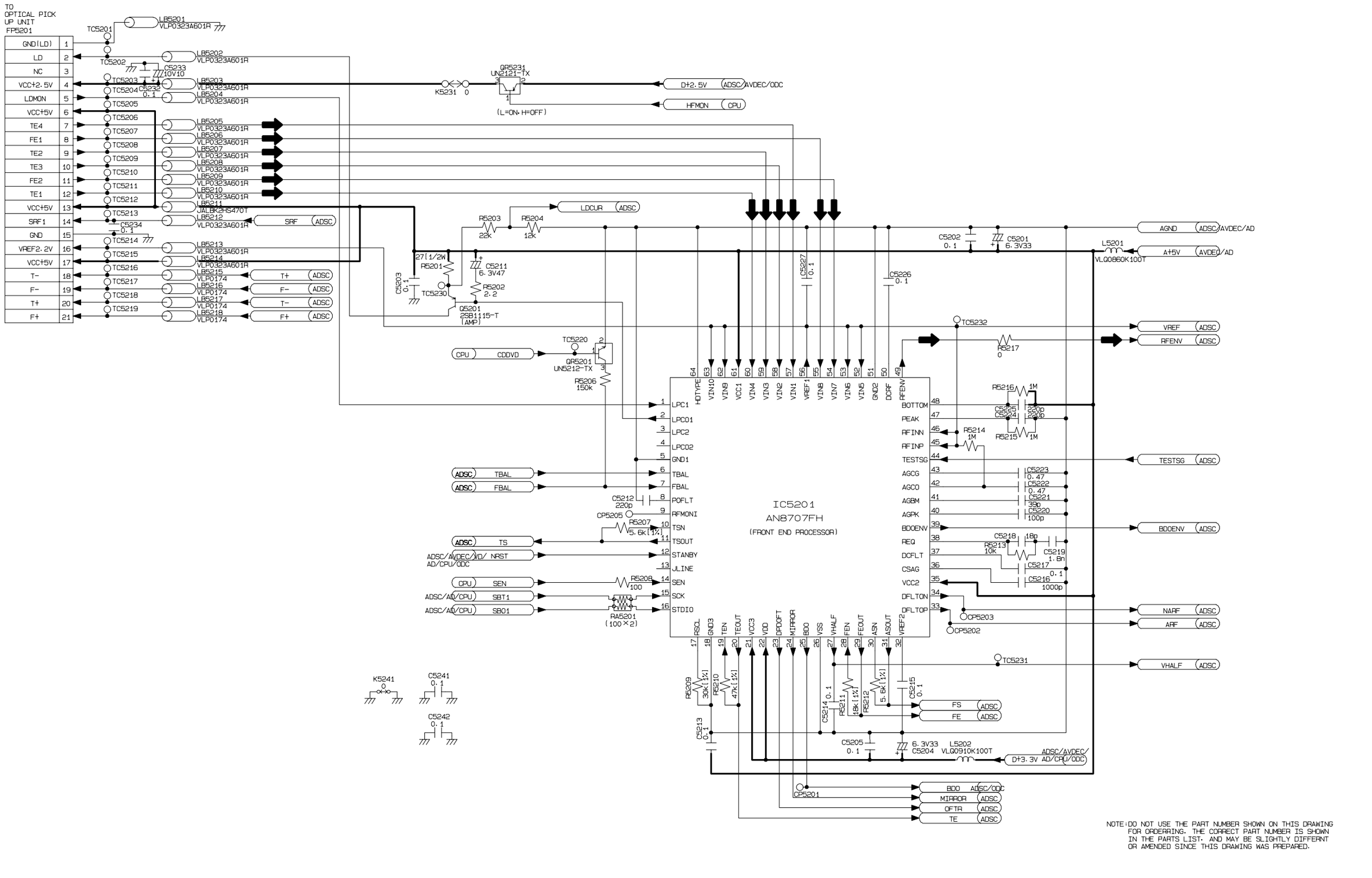
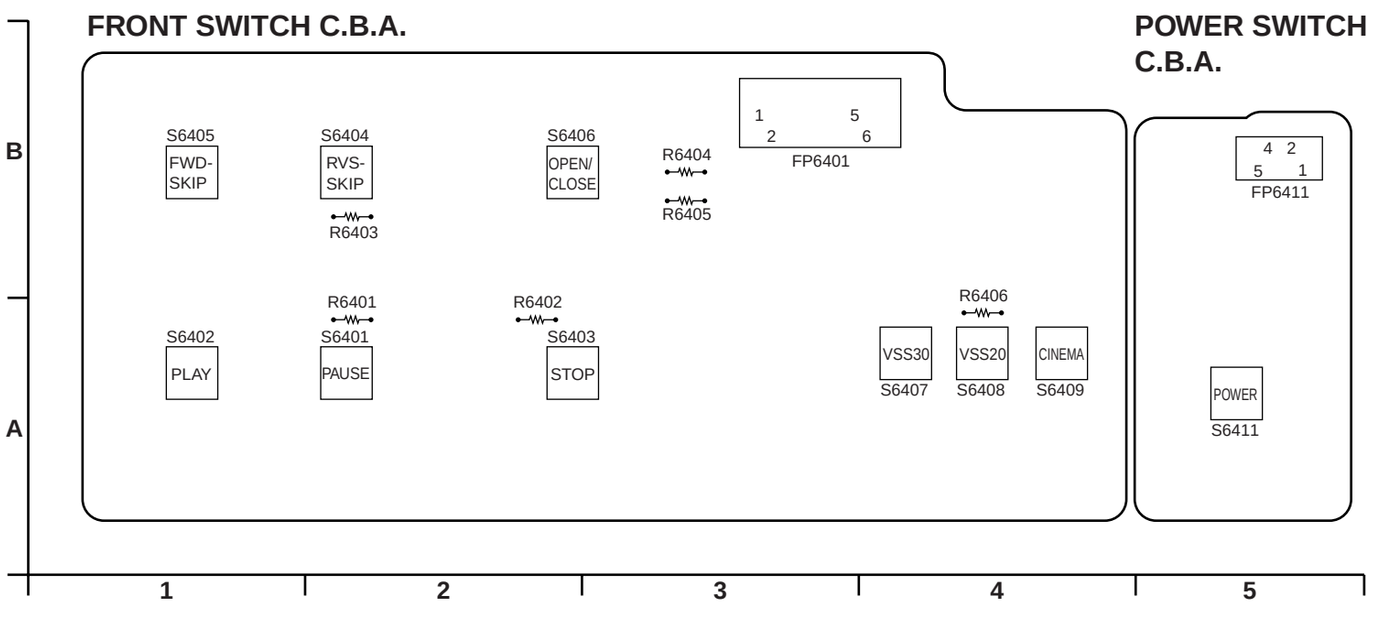
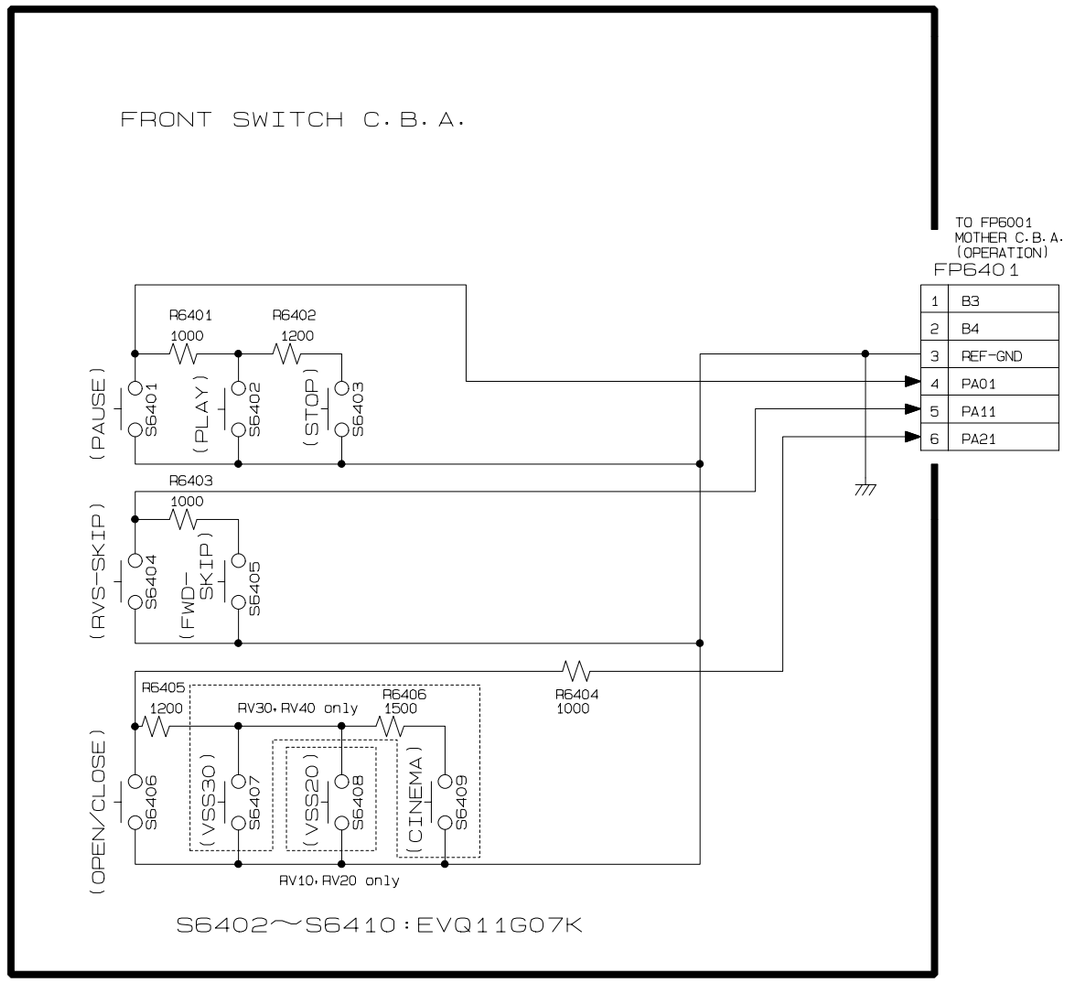
ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
AD SECTION: Page 46, FEP SECTION: Page 47, CPU SECTION: Page 48, ODC SECTION: Page 49

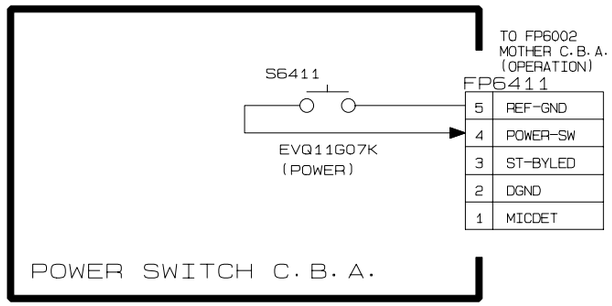
MAIN SIGNAL



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


FRONT SWITCH C.B.A.
POWER SWITCH C.B.A.
B
A
S6405
FWD-SKIP
S6404
RVS-SKIP
R6403
S6406
OPEN/CLOSE
R6404
R6405
1 5
2 6
FP6401
4 2
5 1
FP6411
R6401
R6402
R6406
S6402
PLAY
S6401
PAUSE
S6403
STOP
VSS30
S6407
VSS20
S6408
CINEMA
S6409
POWER
S6411
1
2
3
4
5





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INTERCONNECTION DIAGRAM

SCART C.B.A.

PS3801

NSW+12V	NSW+5V	GND	VOUT	GND	YOUT	GND	COUT	GND	ROUT	GND	LOUT	GND	SCLOCK	SDATA	DVDH
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

PP3801

NSW+12V	NSW+5V	GND	VOUT	GND	YOUT	GND	COUT	GND	ROUT	GND	LOUT	GND	SCLOCK	SDATA	DVDH
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

MOTHER C.B.A.

POWER SUPPLY C.B.A.

NSW-10.5V	1	1	NSW-10.5V
AGND	2	2	AGND
NSW+10.5V	3	3	NSW+10.5V
AGND	4	4	AGND
A+5V	5	5	A+5V
DGND	6	6	DGND
D+2.6V	7	7	D+2.6V
DGND	8	8	DGND
D+2.6V	9	9	D+2.6V
DGND	10	10	DGND
D+5V	11	11	D+5V
MGND	12	12	MGND
M+9V	13	13	M+9V
POWER-OFF(L)	14	14	POWER-OFF(L)
NSW+5V	15	15	NSW+5V
FLH+	16	16	FLH+
FLH-	17	17	FLH-
FL-29V	18	18	FL-29V

PS1101 PP1101

PS3201

(G)	VGND	SDATA	SCLOCK	VGND	C	AGND	A+5V	DGND	DH2.5V	DGND	DH5V	MGND	M+9V	VGND	Y	VGND	(B)	VGND	(R)		
22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

PP3201

(G)	VGND	SDATA	SCLOCK	VGND	C	AGND	A+5V	DGND	DH2.5V	DGND	DH5V	MGND	M+9V	VGND	Y	VGND	(B)	VGND	(R)		
22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

PS4201

AUDIODIGTAL	DGND	CMD	STATUS	DGND	DSPCLK	AGND	CNT	AGND	SW	AGND	SL	AGND	SR	DACMUT	AGND	AMUT	ZFLAG	AGND	FL	AGND	FR
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

PP4201

AUDIODIGTAL	DGND	CMD	STATUS	DGND	DSPCLK	AGND	CNT	AGND	SW	AGND	SL	AGND	SR	DACMUT	AGND	AMUT	ZFLAG	AGND	FL	AGND	FR
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

MODULE C.B.A.

FP2501

STM-B	STM-A	STM-NA	STM-NB	GND	TRV-SW+	SPDM-1	SPDM-2	SPDM-3	H1+	H1-	H2+	H2-	H3+	H3-	VC-	VC+	
17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

FP5201

GND(LD)	LD	NC	VCC+2V	LDMON	VCC+5V	TE4	FE1	TE2	TE3	FE2	TE1	VCC+5V	SHF1	GND	VREF2.2	VCC+5V	T-	F-	T+	F+	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

PICK UP UNIT

FRONT PANEL UNIT

FP6002

1	REF-GND
2	POWER-SW
3	ST-BY/LED
4	DGND
5	NC

FP6411

MICDET	DGND	ST-BYLED	POWER-SW	REF-GND	
1	2	3	4	5	

POWER SWITCH C.B.A.

FRONT SWITCH C.B.A.

FP6401

B3	1
B4	2
REF-GND	3
PA01	4
PA11	5
PA21	6

FP6001

6	B3
5	B4
4	REF-GND
3	PA01
2	PA11
1	PA21

SPINDLE MOTOR

TRAVERSE(STEPPING) MOTOR

LOADING UNIT

MECHANISM LOADING C.B.A.

M2601

S2601

OPEN

COM

CLOSE

TC2601

TC2602

TC2603

TC2604

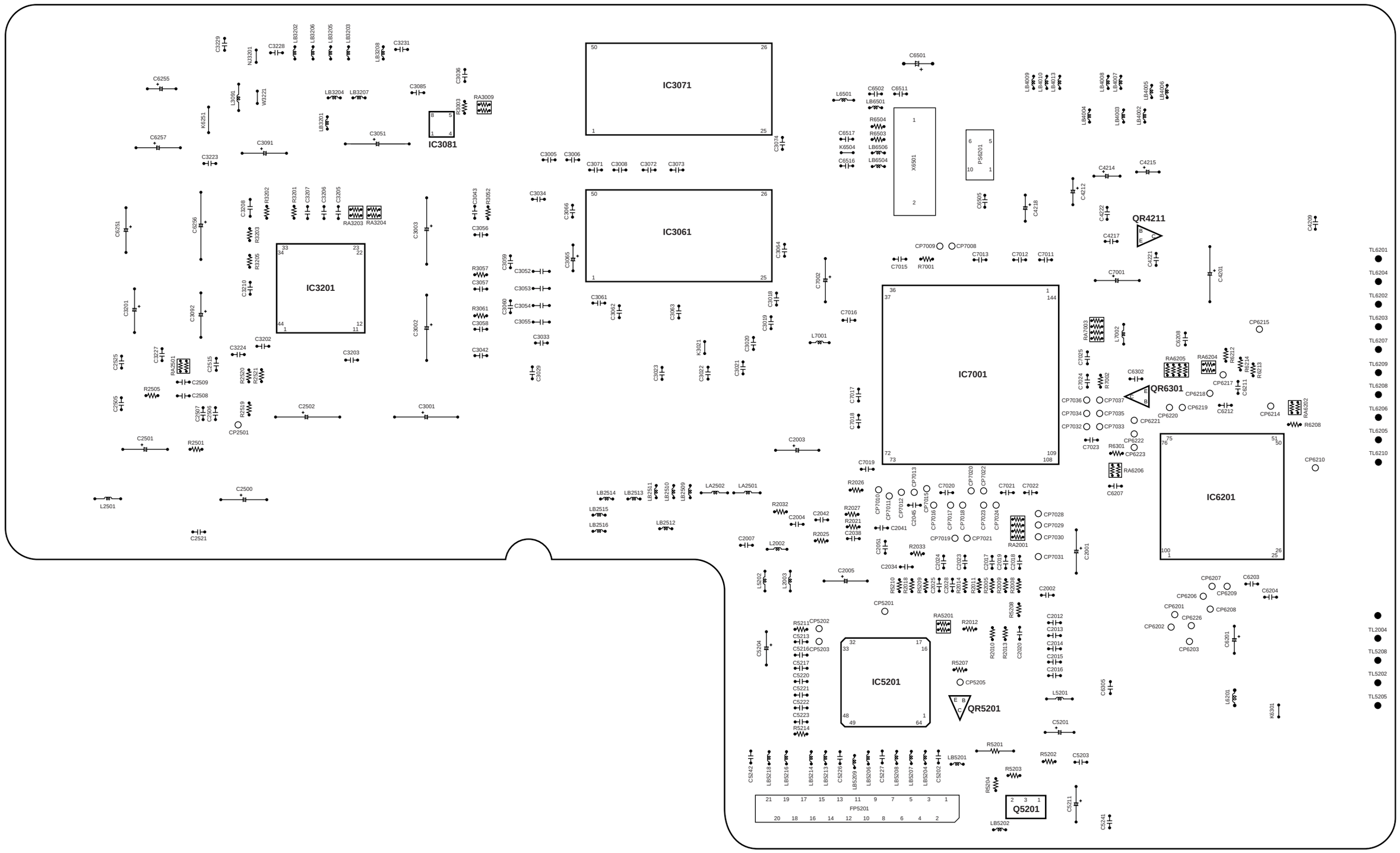
TC2605

PS2591 PP2591

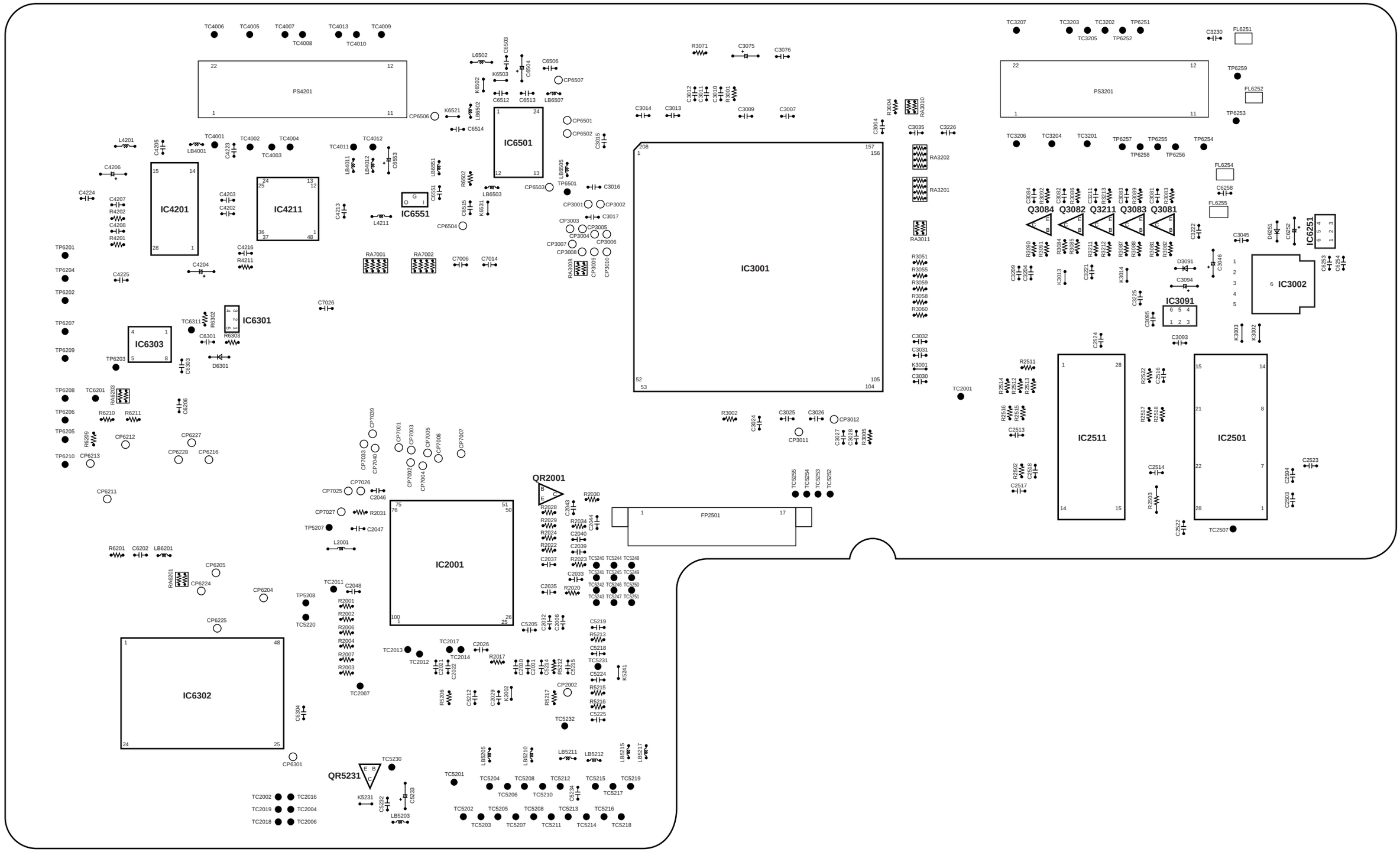
1	LOAD-M+	LOAD-M+	1
2	LOAD-M-	LOAD-M-	2
3	TRAY-OPEN	TRAY-OPEN	3
4	DGND	DGND	4
5	TRAY-CLOSE	TRAY-CLOSE	5

FIP

MODULE C.B.A. (1/2)


IC3071
IC3061
IC3081
IC3201
IC7001
IC6201
IC5201
QR4211
QR6301
QR5201
Q5201
FP5201
X6501
PS6201
L6501
K6504
K6251
L3091
W3221
N3201
L2501
C2521
C2501
R2501
CP2501
C2500
C2502
C3001
C2003
C2005
C2002
C2001
C2004
C2007
L2002
C2042
C2041
C2038
C2051
C2034
C2045
C2023
C2024
C2028
C2105
C2014
C2015
C2016
C2012
C2013
C2020
C2017
C2018
C2019
C2201
C6201
C4201
C4214
C4215
C4212
C4222
C4217
C4218
C4221
C4239
C7001
C7002
C7011
C7012
C7013
C7015
C7016
C7017
C7018
C7019
C7020
C7021
C7022
C7023
C7024
C7025
C7026
C7027
C7028
C7029
C7030
C7031
C6501
C6502
C6511
C6517
C6516
C6505
C6302
C6305
C6207
C6203
C6204
C6206
C6209
C6201
C6208
C6226
C6202
C6203
C6212
C6211
C6207
C6207
C6207

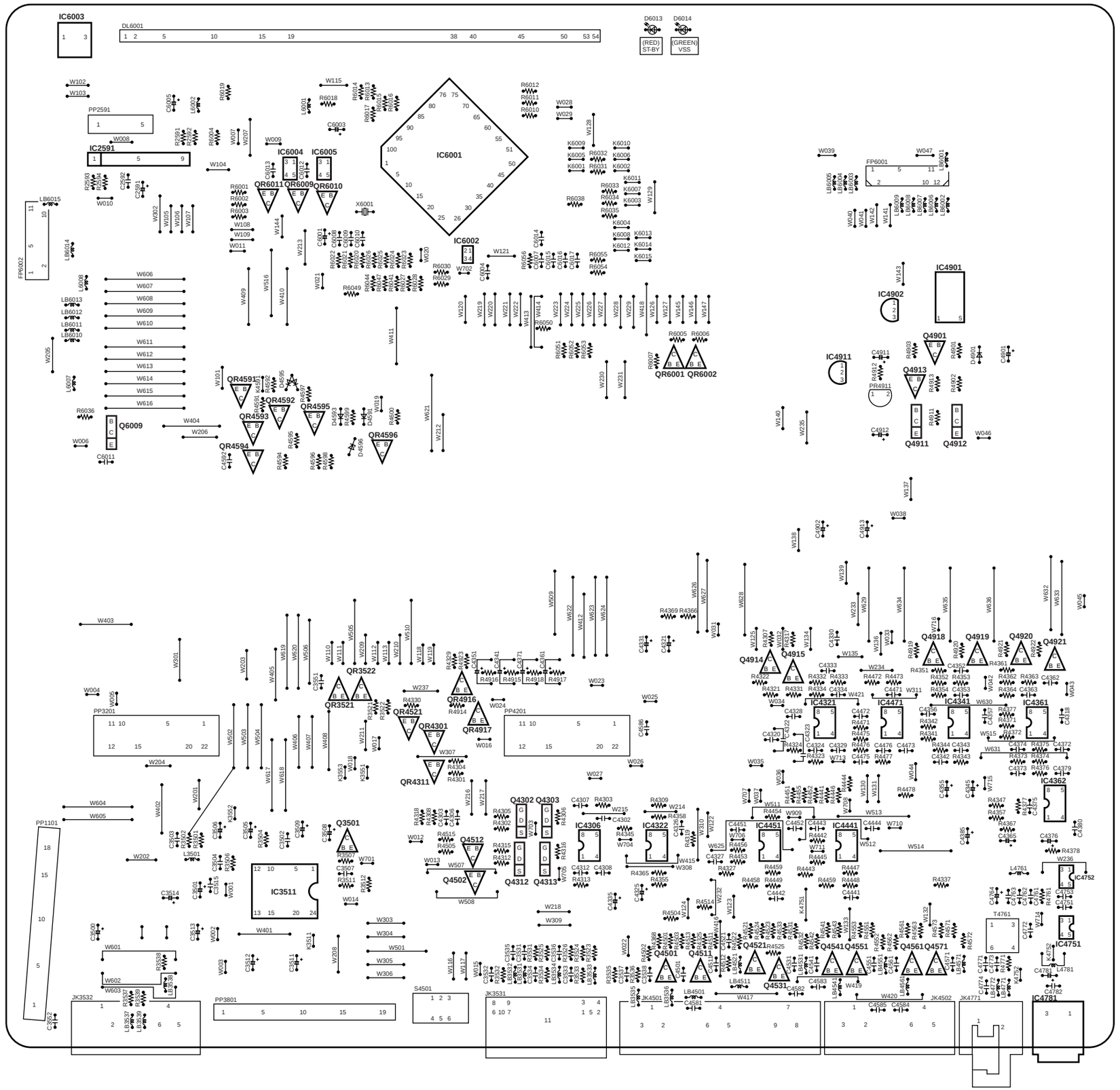
MODULE C.B.A. (2/2)



(FOIL SIDE)

1 2 3 4 5 6 7 8 9

MOTHER C.B.A.


IC6003
DL6001
D6013
D6014
(RED) ST-BY
(GREEN) VSS
IC6001
IC6002
IC6004
IC6005
IC2591
PP2591
PP3201
PP4201
PP3801
PP1101
FP6001
FP6002
X6001
IC4901
IC4902
IC4911
Q4901
Q4913
Q4911
Q4912
PR4911
Q6009
QR6001 QR6002
QR6010
QR6009
QR6011
QR4591
QR4592
QR4593
QR4594
QR4595
QR4596
Q3501
Q4512
Q4502
IC3511
Q4302 Q4303
Q4312 Q4313
IC4306
IC4322
IC4451
IC4441
IC4321
IC4471
IC4341
IC4361
IC4362
IC4752
IC4751
IC4781
QR3522
QR3521
QR4521
QR4916
QR4917
QR4301
QR4311
Q4914
Q4915
Q4918
Q4919
Q4920
Q4921
Q4501
Q4511
Q4521
Q4531
Q4541
Q4551
Q4561
Q4571
JK3532
JK3531
JK4501
JK4502
JK4771
S4501
S2601
T4761
L4761
LB4511
LB4501
MECHANISM
LOADING
C.B.A.
PS2591
M2601
TC2602
TC2604
TC2605
TC2603
TC2601

ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
AD SECTION: Page 46, FEP SECTION: Page 47, CPU SECTION: Page 48, ODC SECTION: Page 49

MAIN SIGNAL PATH

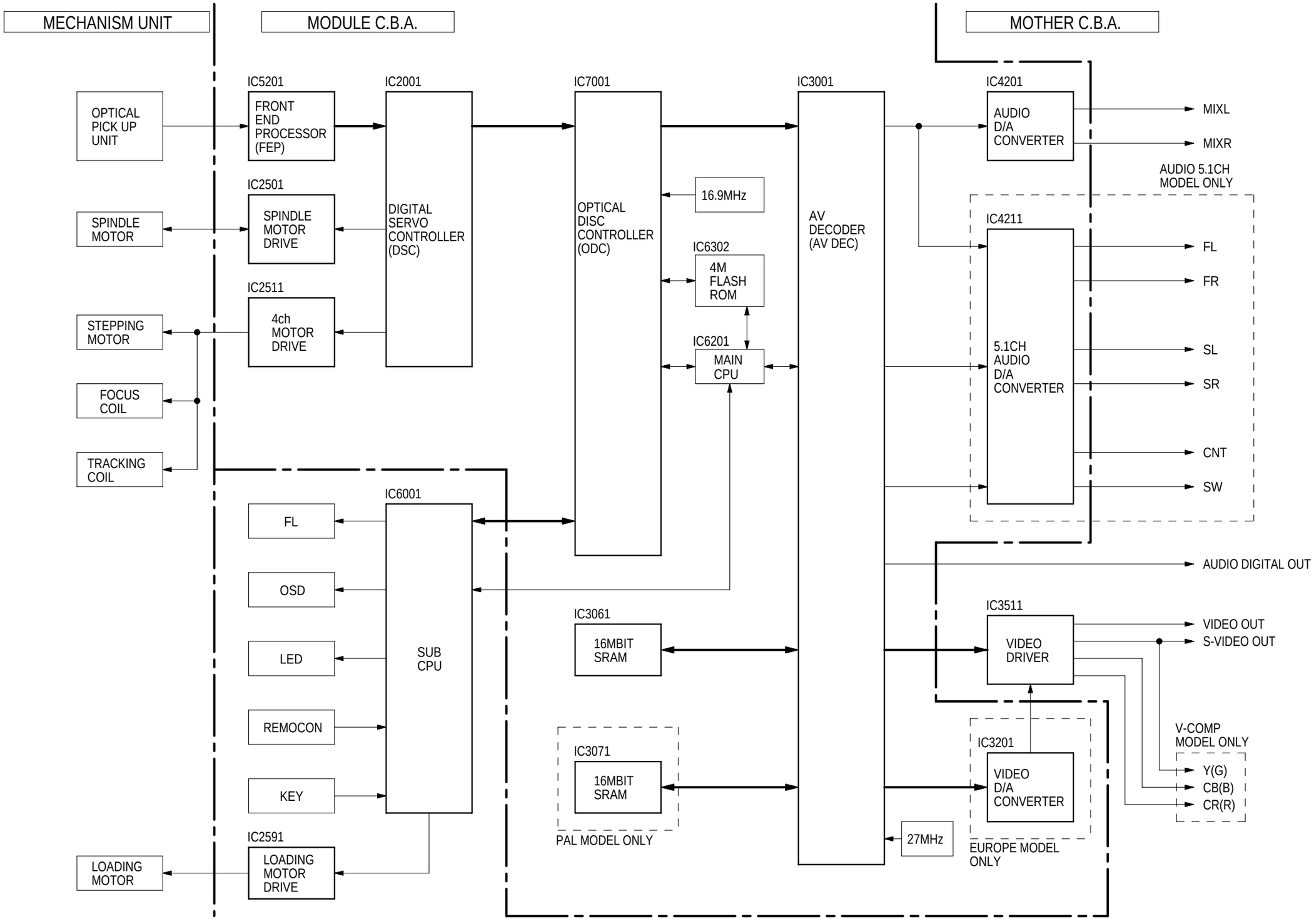
IC7001
MN103S13BGA
(OPTICAL DISC CONTROLLER)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERPRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

VO SECTION: Page 50, AOUT1 SECTION: Page 51, AOUT2 SECTION: Page 52, OP SECTION: Page 53

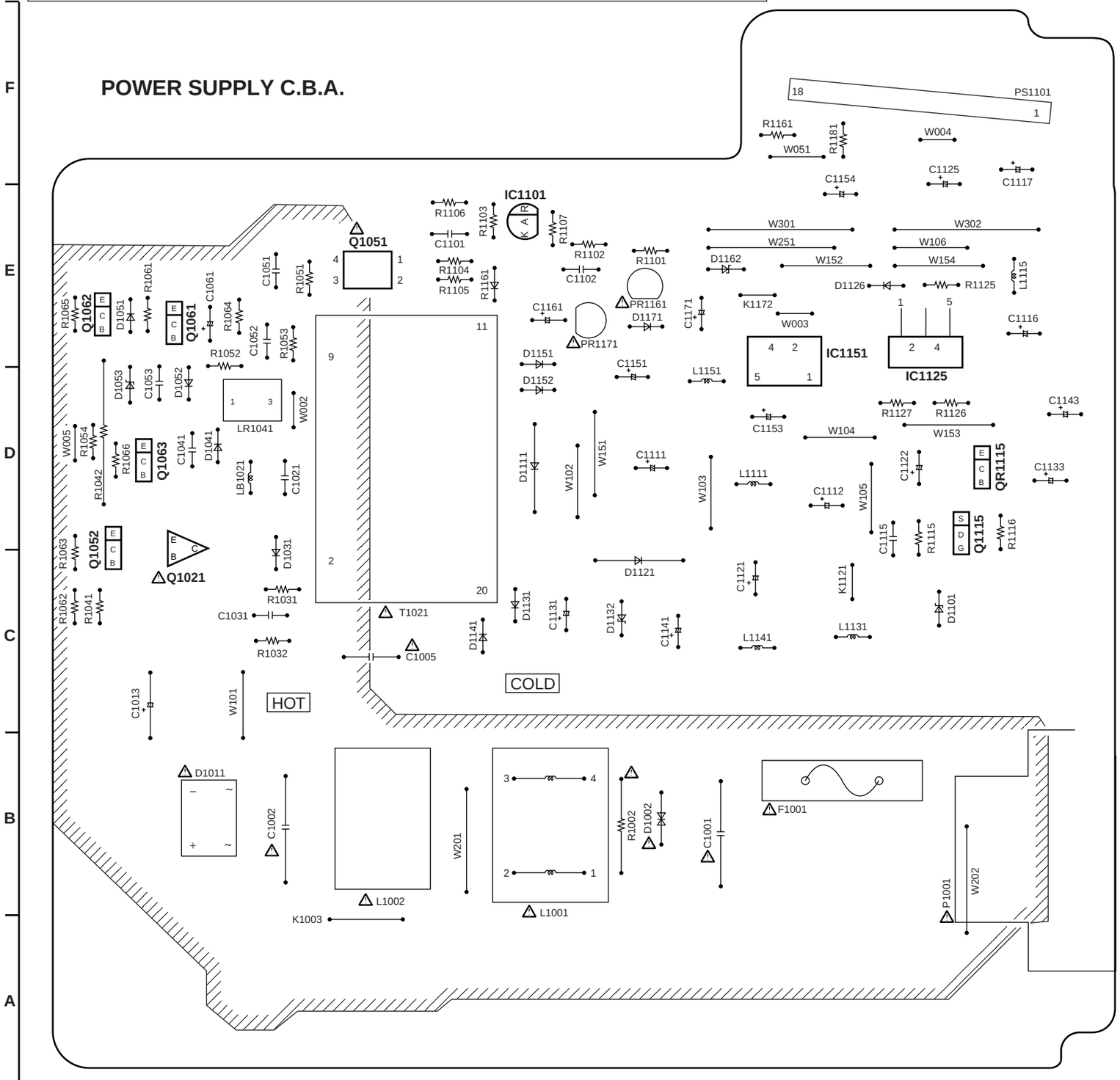
IC6005 TC7ST08FTL (INV.)
IC6004 TC7ST08FTL (INV.)
Except RV30U/CA
QR6011 DTA123JK-T96 (LED DRIVE)
D6013 LN28RCPL
ST-BY (RED)
DL6001 VSL0537
IC6001 MN101C35DCB (OPERATION MICON)
EF0EC8004T4 X6001
IC6002 PST9327UR
IC6003 PNA4611M02VT (IR RECIEVER)
IC2591 BA6956AN (LOADING MOTOR DRIVE)
FP6002
PS2591
MECHANISM LOADING C.B.A.
LB6001～LB6015 : VLP0153-T
RV20K, RV40K only
RV40K only
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

		RV40	RV40-A	RV40-EC/EG/EB	RV40-EU	RV30-U/CA	RV30-PM	RV30-PX	RV20-EC/EG/EB	RV20-EN	RV20-A
K6001	STTS11	○	○	○		○	○	○	○	○	○
K6002	STTS12										
K6003	STTS13										
K6004	STTS14										
K6013	STTS15										
K6005	STTS21	○	○								
K6006	STTS22			○		○	○	○	○		
K6007	STTS23									○	○
K6008	STTS24										
K6014	STTS25										
K6009	STTS31			○						○	
K6010	STTS32					○	○	○			○
K6011	STTS33						○				
K6012	STTS34	○									
K6015	STTS35		○						○		


MECHANISM UNIT
MODULE C.B.A.
MOTHER C.B.A.
OPTICAL PICK UP UNIT
SPINDLE MOTOR
STEPPING MOTOR
FOCUS COIL
TRACKING COIL
IC5201
FRONT END PROCESSOR (FEP)
IC2501
SPINDLE MOTOR DRIVE
IC2511
4ch MOTOR DRIVE
IC2001
DIGITAL SERVO CONTROLLER (DSC)
IC7001
OPTICAL DISC CONTROLLER (ODC)
16.9MHz
IC6302
4M FLASH ROM
IC6201
MAIN CPU
IC3001
AV DECODER (AV DEC)
IC4201
AUDIO D/A CONVERTER
MIXL
MIXR
AUDIO 5.1CH MODEL ONLY
IC4211
5.1CH AUDIO D/A CONVERTER
FL
FR
SL
SR
CNT
SW
AUDIO DIGITAL OUT
IC3511
VIDEO DRIVER
VIDEO OUT
S-VIDEO OUT
V-COMP MODEL ONLY
Y(G)
CB(B)
CR(R)
IC3201
VIDEO D/A CONVERTER
EUROPE MODEL ONLY
27MHz
IC6001
SUB CPU
FL
OSD
LED
REMOCON
KEY
IC3061
16MBIT SRAM
IC3071
16MBIT SRAM
PAL MODEL ONLY
IC2591
LOADING MOTOR DRIVE
LOADING MOTOR

CAUTION THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

POWER SUPPLY C.B.A.



POWER SUPPLY C.B.A.			
Transistors		**Integrated Circuits**	
Q1021	C-1	IC1101	E-3
Q1051	E-2	IC1125	E-5
Q1052	D-1	IC1151	E-5
Q1061	E-1	**Connectors**	
Q1062	E-1	P1001	B-6
Q1063	D-1	PS1101	F-6
Q1115	D-6		
Transistor-resistors			
QR1115	D-6		

ADDRESS INFORMATION

CAUTION

THE ▨ MARK INDICATIONS THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT. PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SAME TYPE.

P1001 SJS9236-1
AC110-240V 50/60Hz
F1001 250V T1.6A H
XBA2C16TB0L or XBA2C16TB0 or XBA2C16TH15 or VSF0107C16-A
ZA1001 EXF528C
ZA1002 EXF528C
C1001 VCF0183M104 OR ECQU2A104MVA
D1002 ENC471D5ATRB
R1002 ERG12AGM334C
L1001 ELF15N005A
L1002 ELF15N005A
C1003 VCK0286B471 or ECKMNA471MBV
C1004 VCK0286B471 or ECKMNA471MBV
K1003
C1002 VCF0183M104 OR ECQU2A104MVA
D1011 S1WBA80
C1013 *ECEC2GB30B / ECEC2GG330B
C1005 VCK0286E102 or ECKMNA102MEV
COLD
HOT
R1031 220k
R1032 220k
C1031 VCK0286K182T
LB1021 VLP0056-T
C1021 VCK0106K221T
D1031 AP01CV2
G1021 2SC4908LF654
ECQB1H223JF4
C1041
LR1041 VLP0392-T
R1041 1.5M
R1042 ERG2SJ680P
D1041 AU01ZV2 or ERA22-02V5
T1021 ETS29AS116AC
D1051 1SS254T-77
C1051 ECQB1H104JF4
R1062 1M
R1065 3.3k
R1063 1M
Q1062 2SC3311A-STA
D1053 MA4022-LTA
R1054 680[2%]
ECQB1H104JF4
C1053
R1051 75
Q1052 2SD1996-STA
D1052 1SS254T-77
R1052 2.2
R1053 330
C1052 ECQB1H683JF4
R1066 47k
R1061 10k
R1064 18K
C1061 6.3V47
Q1061 2SD1996-STA or 2SD1996-RTA
Q1063 2SD1996-STA or 2SD1996-RTA
Q1051 PS2561L1-1W OR PC123FY2
R1104 560
C1102 ECQB1H223JF4
R1105 270
ECQV1H104JL2
C1101
R1101 75
R1102 1.2k[1%]
R1106 3.9k
R1107 4.7k
R1103 1.2k[1%]
IC1101 UPC1093J-1-T
D1131 11EGS10TA1
L1131 VLQEL05T330K
C1131 35V150
D1132
C1133 25V33
MA7180A-TR
D1141 11EGS10TA1
C1141 35V150
C1143 25V33
L1141 VLQEL05T330K
D1121 21DQ06FC4
K1121
C1121 10V1000
C1122 10V1000
D1126 11ES1TA1
IC1125 PQ07RX11
C1125 6.3V1000
R1125 100
R1126 1.2k[1%]
R1127 1.2k[1%]
D1111 21DQ05FC4
L1111 VLQ0655K100T OR VLQ0611K100T
C1111 10V1000
C1112 10V 1000
D1101 MA7075A-TR
C1115 0.1
Q1115 2SJ525TP
R1115 100k
R1116 1K
QR1115 UN4213-TA
L1115 ELELN100KA
C1116 10V220
C1117 6.3V220
D1152 11EGS10TA1
L1151 VLQ0611K220T OR VLQ0655K220T
D1151 11EGS10TA1
C1151 25V270
C1153 25V220
IC1151 SI-3090FLF11
C1154 16V220
R1181 100
D1161 AU01ZV2
C1161 50V56
D1171 AK04V2
K1172
C1171 10V180
PR1171 VSF0015A10T
N25
R1161 100k
PR1161 VSF0015A025T
N5
D1162 MA4030-MTA

TO PP1101 MOTHER C.B.A. (VOUT) PS1101

1	NSW-12.5V
2	AGND
3	NSW+12.5V
4	AGND
5	A+5V
6	DGND
7	D+2.6V
8	DGND
9	D+2.6V
10	DGND
11	D+5V
12	MGND
13	M+9V
14	POWER-OFF(L)
15	NSW+5V
16	FLH+
17	FLH-
18	FL-29V

CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD.
REPLACE ONLY WITH THE SAME TYPE 1.6A-250V FUSE FOR F1001.

ATTENTION : POUR UNE PROTECTION CONTINUE CONTRE LES RISQUES D' INCENDIE.
N' UTILISER QUE DES FUSIBLES DE MEME TYPE : 1.6A-250V POUR F1001.

HOT
<<WARNING! Live Mains>>

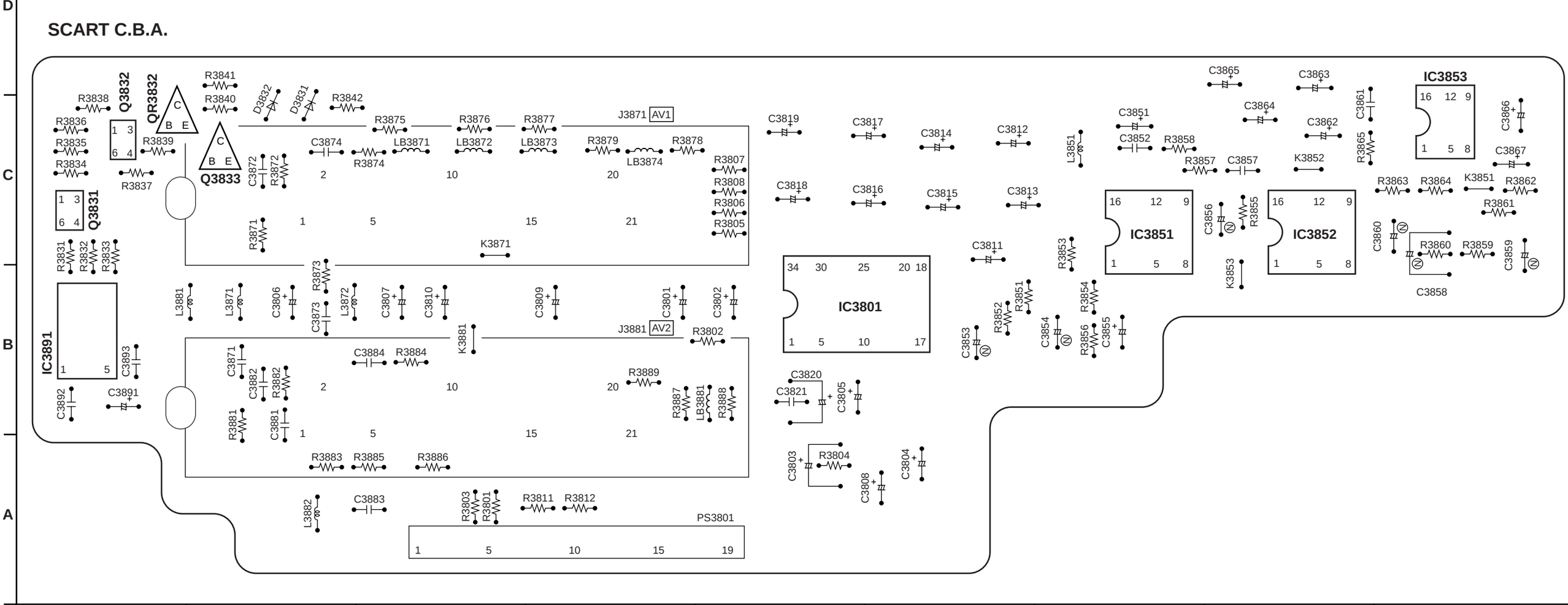
HOT / COLD

NOTE : DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

SCART C.B.A.			
Transistors		IC3853	D-9
Q3831	C-1	IC3891	B-1
Q3832	C-1	**Connectors**	
Q3833	C-2	PS3801	A-5
Transistor-resistors		J3871	C-4
QR3832	C-1	J3881	B-4
Integrated Circuits			
IC3801	B-5		
IC3851	C-7		
IC3852	C-8		

ADDRESS INFORMATION

SCART C.B.A.



VIDEO SIGNAL

(REG 12V)
C3891 16V100
IC3891 PQ12DZ51 ON/OFF
C3892 0.1
C3893 0.1

TO PP3801 MOTHER C.B.A. (VOUT) PS3801

NSW+12V	1
NSW+5V	2
GND	3
VOUT	4
GND	5
YOUT	6
GND	7
COUT	8
GND	9
ROUT	10
GND	11
LOUT	12
GND	13
SCLOCK	14
SDATA	15
DVDH	16
R	17
G	18
B	19

AGND

IC3801 MM1443XJ (VIDEO DRIVE)
E1-V, VCC2, E2-V, VCC1, EXT-V, EXT-L, BIAS, E2-L, MUTE, E1-L, FS, EXT-R, PORT1, PORT2, E2-R, E1-R, NC
GND2, SCL, SDA, VOUT1, VOUT2, VOUT3, TUN-V, LOUT1, LOUT2, LOUT3, TUN-L, ROUT1, ROUT2, ROUT3, TUN-R, GND1, NC

Except RV20EB/EC/EG
D3831 MA152A-TX
R3842 470
R3840 *3.3K
Q3833 *2SB710-RTX (SWITCHING)
R3841 *5.6K
D3832 *MA152A-TX
R3839 *4.7K
QR3831 *UN2217-TX (SWITCHING)

J3871 VJS3921 AV1
A(B)OUT, A(B)IN, A(A)OUT, A-COM, A(A)IN, FUNC SW, CONT, NC, RED I/O, BLK I/O, V-OUT, V-IN, GND, RETURN, BLUE I/O, GREEN I/O
C3872 470p, C3874 470p
R3872 100, R3874 100
K3871 *
R3879 75[1%]
R3871 820, R3873 820
L3871 470u, L3872 470u
C3873 100p, C3871 100p
LB3871 VLP0145-T, LB3872 VLP0145-T, LB3873 VLP0145-T, LB3874 VLP0145-T
R3875 75[1%], R3876 75[1%], R3877 75[1%], R3878 75[1%]

R3806 47K, R3808 47K
R3805 100
R3807 100
R3811 120[1%]
R3812 150[1%]
C3821 0.1
C3820 16V100
R3801 150[1%], C3801 16V47
R3802 150[1%]
R3804 150[1%]
R3803 150[1%], C3803 16V47
C3802 16V47
C3805 16V22, C3804 50V1
C3808 50V1
C3809 50V1
C3819 6.3V330
C3818 6.3V330
C3816 *6.3V330
C3817 *6.3V330
C3814 6.3V220
C3815 16V47
C3813 *6.3V220
C3807 50V1
C3812 6.3V220
C3811 *6.3V220
C3810 50V1

L3851 22u ELESN220JA
C3851 6.3V220
RV60EB/EC/EG only
RV20EB/EC/EG only
Except RV20EB/EC/EG
R3851 *33K[2%], R3853 33K[2%], R3855 33K[2%]
C3852 0.1
R3857 *33K[2%]
C3853 *10V47
C3854 10V47
C3855 *10V47u [KN]
R3852 *5.6K[2%], R3854 5.6K[2%], R3856 *5.6K[2%]
IC3851 MC14053BFL1
C3856 *10V47
R3858 *33K[2%], R3859 *33K[2%], R3861 *33K[2%]
C3857 *0.1
K3851 *
R3863 *33K[2%]
R3865 10k
C3858 *10V47, C3859 *10V47, C3860 *10V47
R3860 *5.6K[2%], R3862 *5.6K[2%], R3864 *5.6K[2%]
K3853 *, K3852 *
IC3852 * MC14053BFL1
C3861 0.1
IC3853 BA7660FS-E2 (VIDEO AMP)
C3862 6.3V100, C3863 16V22, C3864 6.3V100, C3865 16V22, C3866 6.3V100, C3867 16V22

R3831 10K
R3832 4.7K
R3834 10K
R3833 10K
R3835 4.7K
Q3831 XN4402-TX (SWITCHING)
R3836 68
R3837 4.7K
R3838 4.7K
Q3832 XN4401-TX (SWITCHING)

J3881 VJS3921 * AV2
C3882 470p, C3884 470p
R3882 *100, R3884 *100
K3881 *
R3889 75[1%]
R3881 *100, R3883 *100
L3881 *470u, L3882 *470u
C3883 *470p, C3881 *470p
R3885 *75, R3886 *75, R3887 *75
LB3881 * VLP0145-T
R3888 *75[1%]
Except RV20EB/EC/EG

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

RF SIGNAL
SPINDLE MOTOR DRIVE SIGNAL
STEPPING MOTOR DRIVE SIGNAL
TRACKING ERROR SIGNAL
FOCUS ERROR SIGNAL

OPTICAL PICK UP UNIT
PHOTO DETECTOR
B1 B2 A1 A2 A4 A3 B4 B3
HEAD AMP
LASER DIODE
Q5201
LD DRIVE

IC5201
(FEP)
VIN7 54
VIN8 55
VIN1 57
VIN2 58
VIN3 59
VIN4 60
RFENV 49
TE 20
TRACKING BALANCE
TBAL 6
FE 29
FOCUS BALANCE
FBAL 7
BDO 25
OFTR 23
INTERFACE
SEN 14
SCK 15
STD1 16
STNBY 12
LD 2
VC 1

IC2001
(DSC)
100
2
43
3
44
49
47
TRSDRV-A 51
TRSDRV-B 42
TRAKING DRIVE 5
FOCUS DRIVE 6
TRV-SW 59
ECR 15
EC 52
FG 53
SS 56
BRK 55
CPSEN 45
CPCEN 46
CPUIRQ 76
SBT1
SBO1
SBI1 71
DAT0 115
DAT1 114
DAT2 113
DAT3 112

IC6303
(EEPROM)
D 5
C 6
Q 2

IC6201
(CPU)
47
70
72
79
45
46
76
88
89
90
80
79
78
77

IC7001
(ODC)
115
114
113
112

IC2511
(MOTOR DRIVE)
OPIN4- 26
OPIN3- 23
OPIN1- 3
OPIN2- 6
VO3- 18
VO3+ 17
VO4- 16
VO4+ 15
VO1+ 14
VO1- 13
VO2+ 12
VO2- 11
IC2511-11,12,13,14
7.2Vp-p(20usec./div.)

STEPPING MOTOR UNIT
STEPPING MOTOR

OPTICAL PICK UP UNIT
ACTUATOR
FOCUS COIL
TRACKING COIL
ACT F+
ACT F-
ACT T+
ACT T-

SPINDLE MOTOR UNIT
TRAVERSE SWITCH
TRV-SW
H3-
H3+
HALL3
H2-
H2+
HALL2
H1-
H1+
HALL1
M1
M2
M3

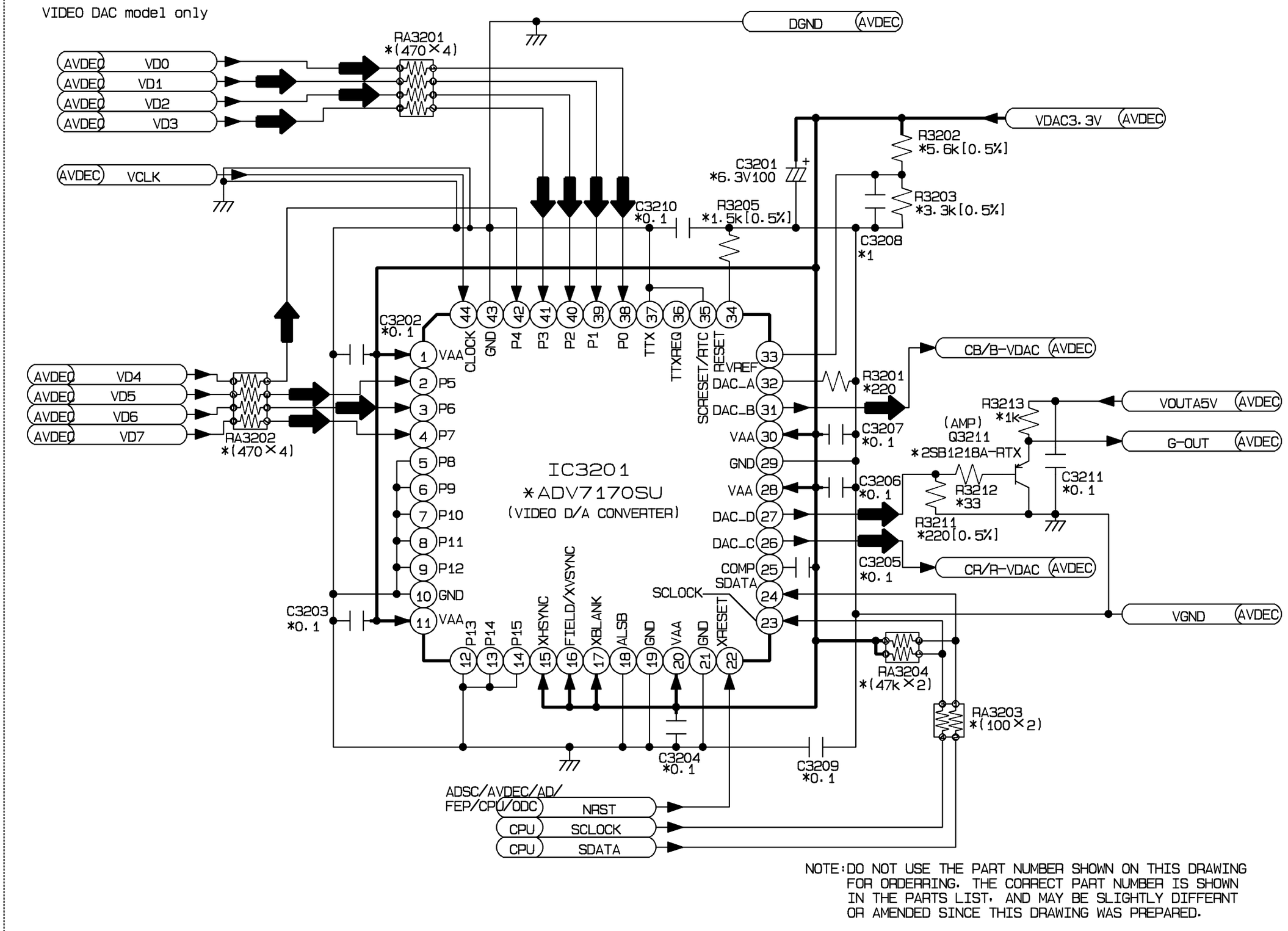
IC2501
(SPINDLE MOTOR DRIVE)
ECR 17
EC 18
FG 12
SS 10
BRK 13
H3- 9
H3+ 8
H2- 6
H2+ 5
H1- 3
H1+ 2
A1 28
A2 27
A3 26
IC2501-24
5.0Vp-p(20usec./div.)

IC6001
(OPERATION MICON)
TRAY SET1 30
TRAY SET2 29
TRAY OPEN 27
TRAY CLOSE 28

IC2591
(LOADING MOTOR DRIVE)
RIN 9
FIN 7
OUT1 4
OUT2 2
IC2591-2(UP),IC2591-4(DOWN)
OPEN 2.5Vp-p
(0.5sec./DIV.)
IC2591-2(UP),IC2591-4(DOWN)
CLOSE 2.5Vp-p
(0.5sec./DIV.)

LOADING MOTOR UNIT
M2601
LOADING MOTOR
LOAD M+
LOAD M-
S2601
TRAY OPEN
TRAY CLOSE

VIDEO DAC model only



NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

MODULE C.B.A.

MOTHER C.B.A.

VIDEO SIGNAL

IC3001-129
0.68Vp-p(20usec./div.)

IC3001-124
0.64Vp-p(20usec./div.)

IC3001-134
1.2Vp-p(20usec/div)

IC3001-119
0.8Vp-p(20usec/div)

IC3001-147 TO 150,152 TO 155
6.0Vp-p(20usec./div.)

IC3201-26
0.68Vp-p(20usec./div.)

IC3201-31
0.64Vp-p(20usec./div.)

IC3511-21
2.2Vp-p(20usec./div.)

IC3511-18
1.2Vp-p(20usec./div.)

IC3511-20
2.2Vp-p(20usec./div.)

IC3001
(AV DECORDER)

VYOUT 134 Y

VBOUT 119 C

VGOUT 124

VCOUT 129

VD0 147
148
149
150
152
153
154
VD7 155

VIDEO DAC MODEL ONLY

IC3201
(VIDEO D/A CONVERTER)

38 P0
39
40
41
42
2
3
4 P7

FROM IC6201-9PIN SCLOCK 23 SCLOCK

FROM IC6201-10PIN SDATA 24 SDATA

DAC-B 31 CB/B

DAC-C 26 CR/R

XRESET 22

XRST 12

QR6301

NRST FROM IC6201-79PIN

Q3084 AMP

Q3081 AMP

Q3083 AMP

Q3082 AMP

V-COMP
MODEL ONLY

IC3511
(VIDEO DRIVE)

3 Y

7 C

9 GIN

11 BIN

GOUT 16

BOUT 15

YOUT 20

VOUT 21

COUT 18

VIDEO OUT

S-VIDEO OUT

IC3801

V

Y

C

5

1

3

29

30

28

J3881-20

J3871-19 V-OUT

IC3851

H

L

YC-H

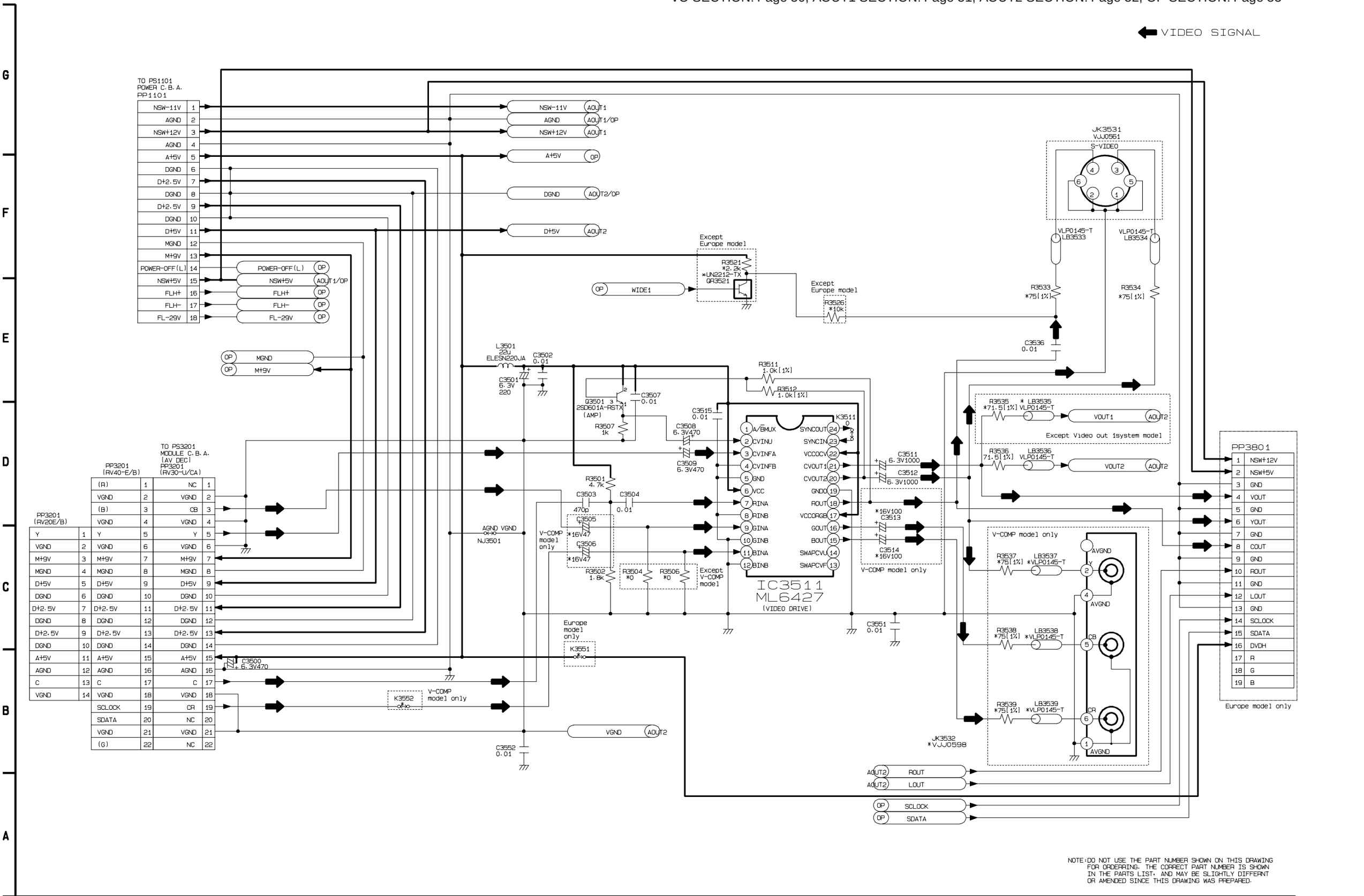
IC3853

J3871-15 RED-I/O

SCART C.B.A.

VO SECTION: Page 50, AOUT1 SECTION: Page 51, AOUT2 SECTION: Page 52, OP SECTION: Page 53

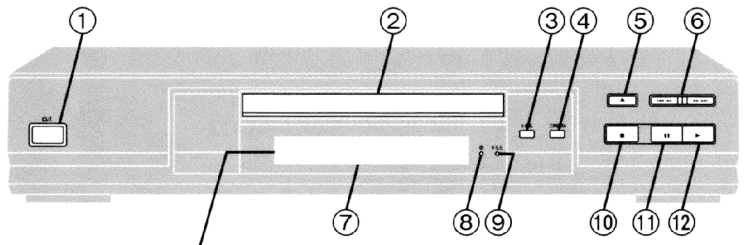
VIDEO SIGNAL



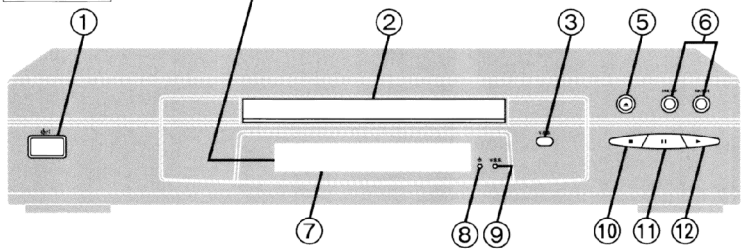
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

Control reference guide

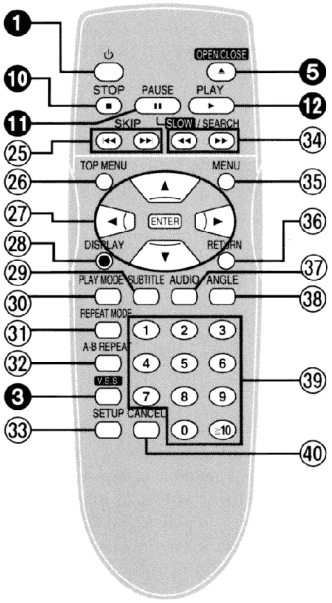
DVD-RV40



DVD-RV20



Buttons such as ❶ function in exactly the same way as the buttons on the player.

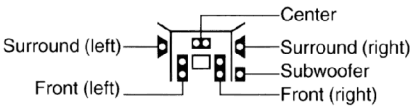


Player

① **Standby/on switch (⏻/I)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
② **Disc tray**
③ **Virtual Surround Sound button (V.S.S.)**
④ **DVD-RV40 Cinema button (CINEMA)**
⑤ **Disc tray open/close button (⏏)**
⑥ **Skip/Search button (⏮/◀◀, ▶▶/⏭)**
⑦ **FL display**
⑧ **STANDBY indicator (⏻)**
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
⑨ **Virtual Surround Sound indicator (V.S.S.)**
⑩ **Stop button (■)**
⑪ **Pause button (❚❚)**
⑫ **Play button (▶)**
⑬ **Rotates during play.**
Rotates fast clockwise or counterclockwise during rapid advance (reverse).
Rotates slowly clockwise or counterclockwise during slow-motion play. DVD VCD

Illuminates in the stop mode.

⑭ **Illuminates during playback.**
Flashes when the RESUME function is ON.
⑮ **Illuminates during repeat play.**
⑯ **Illuminates in the still picture (pause) mode.**
⑰ **Elapsed playing time from the start of the title/track during play**
⑱ **Audio channel information recorded in the disc being played back (e.g. 2ch or 5.1ch)**



⑲ **A DVD is loaded.**
⑳ **It is possible to change the angle.** DVD
㉑ **Illuminates during program play.** VCD CD
㉒ **Title/chapter number** DVD
Track number VCD CD
㉓ **Linear PCM of 96 kHz sampling is being played.**
㉔ **Linear PCM of 24 bit is being played.**

Remote control

㉕ **Skip buttons (⏮, ⏭ SKIP)**
㉖ **Top menu button (TOP MENU)**
㉗ **Cursor buttons (▲, ▼, ◀, ▶)/Enter button (ENTER)**
㉘ **Display button (DISPLAY)**
㉙ **Subtitle button (SUBTITLE)**
㉚ **Play mode button (PLAY MODE)**
㉛ **Repeat mode button (REPEAT MODE)**
㉜ **A-B repeat button (A-B REPEAT)**
㉝ **Setup button (SETUP)**
㉞ **Slow/Search buttons (◀◀, ▶▶ SLOW/SEARCH)**
㉟ **Menu button (MENU)**
㊱ **Return button (RETURN)**
㊲ **Audio button (AUDIO)**
㊳ **Angle button (ANGLE)**
㊴ **Numeric buttons (1–9, 0, ≧10)**
- **To select a 2-digit number**
Example: To select track 23
Press [≧10], then [2] and [3].

㊵ **Cancel button (CANCEL)**

Ref No.	IC1101				IC1125						IC1151									
MODE	K	R	A		1	2	3	4	5		1	2	3	4	5					
STOP	2.9	2.5	0		3.8	4.9	2.6	1.2	0		0	4.9	9.0	9.0	10.2					
PLAY	2.9	2.5	0		3.8	4.9	2.6	1.2	0		0	4.9	9.0	9.0	9.7					

Ref No.	Q1021				Q1051					Q1052				Q1061				Q1062		
MODE	E	C	B		1	2	3	4		E	C	B		E	C	B		E	C	B
STOP	0	-8.6	0		5.2	4.0	1.1	10.2		0	-0.2	0.2		0	0	0.6		0.1	10.1	0
PLAY	0	-8.6	0		5.2	4.0	1.0	10.1		0	-0.1	0.2		0	0	0.6		0.1	10.1	0

Ref No.	Q1063				Q1115															
MODE	E	C	B		S	D	G													
STOP	0	-0.1	-0.5		5.1	5.1	0													
PLAY	0	-0.1	-0.5		5.1	5.1	0													

Ref No.	QR1115																			
MODE	E	C	B																	
STOP	0	0	4.9																	
PLAY	0	0	4.9																	

Ref No.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	1.6	1.6	3.3	1.7	0	0	1.6	1.6	1.5	0	0	0	3.3	1.6	2.8	0.2	2.2	1.5	0
PLAY	1.5	0	1.7	3.3	1.5	1.7	0	1.6	1.6	1.5	1.5	1.5	1.6	3.3	1.7	2.8	0.2	2.2	1.5	0
Ref No.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.2	2.2	0	0	1.5	2.2	3.3	1.7	0	0	1.7	0.4	1.7	1.6	0	1.6	1.7	3.3	0	1.7
PLAY	1.8	1.7	1.5	1.7	1.5	2.2	3.3	1.7	1.2	0	1.7	1.2	1.7	1.6	0	1.6	1.7	3.3	1.7	1.7
Ref No.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0	2.1	1.4	1.6	0	3.3	3.0	1.5	0	0	0	0	0	0	0	0	0	2.5	0	0
PLAY	0	2.0	1.6	1.7	0	3.3	0	0	0	0.4	1.5	1.6	1.4	3.3	3.3	0	0	3.0	3.0	0
Ref No.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.3	0	0	0	0	0	3.3	0	0	1.4	0	0	0	0	3.3	1.6	1.6	1.6	1.6	0
PLAY	3.3	0	3.3	0	0	0	0	1.7	0	1.4	0	0	0	0	0	1.6	1.6	1.6	1.6	1.6
Ref No.	IC2001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	3.2	3.3	3.3	3.3	3.1	3.3	3.1	0	0	0	0.1	0	2.5	1.7	1.6	1.6	1.7
PLAY	0	3.3	3.3	3.3	0	0	3.3	3.2	3.3	3.1	0	0	0	0	0	2.5	1.4	1.8	1.4	2.2
Ref No.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	5.0	5.0	0	5.1	5.1	5.1	5.1	5.1	0	5.0	2.7	3.3	0	0	5.0	1.7	1.7	0	0
PLAY	0	0	0	0	2.9	2.9	0.8	0	0	3.3	5.0	1.4	3.3	0	0	5.0	0	1.6	0	0.6
Ref No.	IC2501																			
MODE	21	22	23	24	25	26	27	28												
STOP	9.0	9.0	0	0	0	1.5	1.6	1.7												
PLAY	9.0	9.0	0	0	0	7.4	7.4	7.4												
Ref No.	IC2511																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	1.7	1.7	1.6	1.7	1.6	1.6	0	0	5.1	2.4	0.5	0.5	0.5	6.7	7.0	7.1	7.4	9.0	0
PLAY	1.7	1.7	1.7	1.7	1.7	0	1.7	0	3.3	5.0	2.6	2.4	2.4	2.7	4.8	3.7	3.4	5.0	9.0	0
Ref No.	IC2511																			
MODE	21	22	23	24	25	26	27	28												
STOP	0	1.9	1.9	1.7	2.0	2.0	1.7	9.0												
PLAY	0	1.5	1.7	1.7	1.8	1.7	1.7	9.0												

Ref No.	IC3001																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
STOP	3.3	0	1.2	0	0	1.2	0	1.0	3.3	1.2	3.3	3.2	3.3	1.8	0	0	0	0	0	0	
PLAY	3.3	0	1.1	0	0	1.1	0	1.0	3.3	2.0	3.3	3.2	3.3	1.8	0	0	0	0	0	0	
Ref No.	IC3001																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
STOP	0	0	0	0	0	0	3.3	3.3	0	3.3	3.1	3.3	1.5	3.3	3.0	3.0	2.9	3.0	1.8	2.8	
PLAY	0	0	0	0	0	0	0	3.3	0	3.3	3.3	3.3	1.5	3.3	3.3	3.3	3.3	0	1.8	3.3	
Ref No.	IC3001																				
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
STOP	3.1	2.8	2.7	0	2.9	2.9	2.9	3.3	3.1	3.1	3.1	0	3.3	3.1	3.1	3.1	3.2	0	3.2	3.1	
PLAY	0	3.3	3.3	0	3.3	0	0	3.3	3.3	3.3	0	0	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	
Ref No.	IC3001																				
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
STOP	3.1	3.1	1.8	3.1	3.2	3.1	3.2	0	3.2	0	1.6	3.3	3.3	3.3	3.3	0	3.3	0	1.8	0	
PLAY	3.3	3.3	1.8	3.3	3.3	3.3	3.3	0	3.3	0	1.6	3.3	3.3	3.3	0	3.3	3.3	3.3	1.8	3.3	
Ref No.	IC3001																				
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	
STOP	3.3	0	3.3	0	1.6	0	1.8	1.4	1.6	1.6	3.3	0	0	0	0	0	0	3.3	1.6	3.3	
PLAY	3.3	3.3	3.3	1.7	0	1.8	1.4	1.7	1.6	0	0	0	0	0	0	3.3	1.5	3.3	3.3	3.3	
Ref No.	IC3001																				
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	
STOP	1.1	0	0	1.8	1.8	0	0	1.8	3.3	1.6	3.3	3.3	0.6	0	0	1.0	1.0	2.3	0.6	3.3	
PLAY	1.3	0	0.2	1.8	0	0	0	0	3.3	1.6	3.3	3.3	0	0	0	1.0	0	0	0.6	3.3	
Ref No.	IC3001																				
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	
STOP	0.6	0.6	2.4	0.4	0	0.6	0.6	2.3	0.4	3.3	1.3	1.3	2.2	0.4	0	0	0	0	0	0	
PLAY	0.6	0.6	0	0.4	0	0.6	0.6	2.3	0.4	3.3	1.3	2.2	0.5	0	0	0	0	0	0	0	
Ref No.	IC3001																				
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	
STOP	0	0	3.3	3.1	0	1.8	0	0	0	0	0	0	0	0	0	3.3	0	2.8	2.9	3.3	
PLAY	0	0	3.3	3.1	0	1.8	0	0	0	0	0	0	0	0	0	3.3	0	2.7	0	3.3	
Ref No.	IC3001																				
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	
STOP	2.6	2.8	0	2.7	2.8	3.3	3.0	2.8	0	2.8	3.1	3.3	0	1.8	2.9	0	2.8	2.7	3.3	2.9	
PLAY	2.6	2.7	0	2.6	2.5	3.3	2.5	2.5	0	2.5	2.6	3.3	2.5	1.8	2.6	0	3.3	3.3	3.3	2.6	
Ref No.	IC3001																				
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	
STOP	2.8	0	1.7	3.3	0	0	0	1.8	2.6	3.3	3.3	0	3.2	0	0	3.1	3.3	3.3	3.0	0	
PLAY	2.6	0	1.6	3.3	1.6	0	3.3	1.8	2.2	3.3	3.3	1.9	3.3	3.3	3.2	3.3	3.3	3.0	0	0	
Ref No.	IC3001																				
MODE	201	202	203	204	205	206	207	208													
STOP	0	1.8	1.2	0	3.3	0	0.9	0													
PLAY	0	0	1.4	0	0	0	1.2	0													
Ref No.	IC3002																				
MODE	1	2	3	4	5																
STOP	2.6	2.6	1.8	0	0																
PLAY	2.6	2.6	1.8	0	0																
Ref No.	IC3061																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
STOP	3.3	2.8	2.8	0	2.8	3.3	3.3	3.1	2.9	0	2.7	2.8	3.3	2.6	3.2	3.2	3.1	3.0	1.2	0	
PLAY	3.3	3.1	3.1	0	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	0	
Ref No.	IC3061																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
STOP	0	0	0	1.2	3.3	0	1.0	0	0	0	0	0	0	3.3	1.7	2.6	0	3.3	2.9	2.8	
PLAY	0	0	0	0	3.3	0	0	0	1.4	0	0	0	0	0	0	0	0	3.3	0	2.5	
Ref No.	IC3061											IC3091									
MODE	41	42	43	44	45	46	47	48	49	50		1	2	3	4	5	6				
STOP	0	2.6	0	3.3	2.9	2.8	0	2.6	2.8	0		5.0	0	1.3	3.3	0	5.0				
PLAY	0	2.5	2.5	3.3	2.7	2.6	0	0	0.2	0		5.0	0	1.3	3.3	0	5.0				
Ref No.	IC4201																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
STOP	1.7	0	1.6	1.7	1.6	2.6	0	4.9	4.9	0	2.4	0	0	0	4.9	2.5	0	2.4	0	4.9	
PLAY	1.7	1.2	1.6	1.7	1.6	2.6	0	4.9	4.9	0	2.4	0	2.4	0	4.9	0	0	0	0	0	
Ref No.	IC4201																				
MODE	21	22	23	24	25	26	27	28													
STOP	0.2	3.2	0	0	4.9	3.3	3.2	3.3													
PLAY	4.2	3.2	0	4.9	4.9	0	3.2	3.3													
Ref No.	IC5201																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
STOP	0	4.4	0.9	0.9	0	1.7	1.7	1.9	0.6	1.6	1.6	3.2	1.7	3.3	3.3	3.3	0	0	1.7	1.7	
PLAY	0.6	3.3	1.3	1.3	0	1.7	1.7	1.9	1.1	1.6	1.6	3.2	1.7	3.3	3.2	3.3	1.2	0	1.7	1.7	
Ref No.	IC5201																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
STOP	3.3	0	0	0	0	0	1.7	1.7	0	0	0	2.2	2.1	5.0	5.0	2.8	2.1	0	1.6	3.4	
PLAY	3.3	3.3	3.2	1.2	0	0	1.7	1.7	1.7	1.7	1.7	1.9	2.1	0	4.9	2.8	2.1	0.1	1.6	3.4	
Ref No.	IC5201																				
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
STOP	3.6	2.1	1.1	2.2	2.2	0	1.7	1.5	1.7	2.2	0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0	0	
PLAY	3.7	2.2	1.2	2.2	2.2	0	0	1.5	1.7	2.2	0	0	2.2	0	0	1.9	0	0	0	0	
Ref No.	IC5201																				
MODE	61	62	63	64																	
STOP	5.0	0	0	0																	
PLAY	0	2.2	0	0																	

Ref No.	IC6201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	3.1	3.3	2.1	0	3.3	3.3	3.0	3.3	0	3.3	3.3	2.5	3.0	0	0	3.3	0	0	0
PLAY	3.3	0	3.3	2.3	0	0	3.3	2.7	0	0	0	0	0	2.7	0	0	0	0	0	0
Ref No.	IC6201																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	3.3	3.3	1.6	1.6	3.3	3.0	2.8	3.0	3.3	0.3	0	0.1	0.3	3.3	0	3.3	3.3	3.3	3.3	0.1
PLAY	3.3	3.3	1.6	1.6	3.3	2.7	2.6	2.7	2.7	2.6	2.6	2.6	2.7	3.3	2.4	2.3	2.5	2.7	2.5	2.8
Ref No.	IC6201																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0.1	0.3	0	0.5	0.4	0.5	2.7	1.0	1.3	3.3	3.3	3.3	3.2	1.3	3.3	3.3	0.4	0.4	0.4	0
PLAY	1.9	2.0	0.8	3.3	3.3	3.3	3.3	1.0	1.2	2.8	1.5	2.5	0	1.3	3.3	3.3	3.3	0	0	0.1
Ref No.	IC6201																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	1.3	1.0	0.5	0.5	3.3	0	0	0	3.3	0	3.3	3.3	3.3	3.3	3.3	3.3	0	0	0
PLAY	0	1.3	1.2	3.3	0	3.3	3.3	3.3	0	3.3	2.8	3.3	3.2	0	3.2	3.3	0.1	0	0	0.1
Ref No.	IC6201																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	0	0	3.3	3.3
PLAY	3.2	3.3	3.3	0	2.6	0	0	0	3.3	3.3	2.4	0	0	0	2.5	0	0	3.3	3.3	3.3
Ref No.	IC6251							IC6301												
MODE	1	2	3	4	5	6		1	2	3	4	5								
STOP	5.1	0	1.3	3.3	0	5.1		0	0	0	3.3	3.3								
PLAY	5.0	0	1.3	3.3	0	5.0		0	0	0	3.3	3.3								
Ref No.	IC6302																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.9	2.8	2.9	2.6	2.7	2.9	0	0	0	3.3	3.3	0	0	0	2.5	2.5	2.7	2.6	2.8	3.1
PLAY	2.6	2.7	2.5	2.3	2.4	2.8	2.6	2.6	0	0	3.3	3.3	0	0	0	2.0	1.9	2.6	2.7	2.8
Ref No.	IC6302																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.8	3.0	0	0	3.0	3.1	0	3.1	1.1	1.2	1.1	1.3	1.6	2.1	0.9	0	0	0.9	2.1	0.4
PLAY	2.6	2.7	2.6	2.8	0	2.7	0	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	3.3	2.9	2.9	2.9
Ref No.	IC6302									IC6303										
MODE	41	42	43	44	45	46	47	48		1	2	3	4	5	6	7	8			
STOP	1.3	0.4	1.3	0.4	1.2	0	3.3	0		3.3	3.1	3.3	0	3.3	0	3.3	3.3			
PLAY	2.9	2.9	3.0	3.0	3.0	0	3.3	2.8		3.3	3.1	0	0	3.3	3.1	3.3	3.3			
Ref No.	IC6501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	0	1.3	0	3.3	3.3	0	1.5	1.6	0	3.3	0	1.3	0	3.3	1.5	0	0	3.2	0
PLAY	3.3	0	1.4	0	3.3	3.3	0	1.5	1.6	0	3.3	1.6	1.3	0	3.3	1.5	0	0	3.2	0
Ref No.	IC6501																			
MODE	21	22	23	24																
STOP	3.3	1.6	3.3	1.6																
PLAY	0	1.6	0	1.6																
Ref No.	IC6551																			
MODE	1	2	3																	
STOP	3.3	5.0	0																	
PLAY	3.3	5.0	0																	
Ref No.	IC7001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	0.6	0	0	3.3	3.3	0	0	0	0	0	0	0	3.3	3.3	0	0	0	3.3	3.3
PLAY	3.3	3.3	3.3	3.3	3.3	3.3	0	0	3.3	2.5	3.3	3.3	3.3	3.3	3.3	0	0	0	3.3	3.3
Ref No.	IC7001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	3.3	3.3	3.3	3.3	0.4	3.3	0.4	0.4	0	3.3	0	0	0	0	0	2.5	3.3	3.3	0	3.3
PLAY	3.3	3.3	3.3	3.3	0.5	0	0.5	0.5	0	3.3	0	3.3	0	0	0	2.5	0	0	0	0
Ref No.	IC7001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.3	3.3	3.3	2.5	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3
PLAY	0	0	0	0	3.3	0	0	3.3	0	0	3.3	3.3	0	3.3	0.1	0	0	3.3	3.3	3.2
Ref No.	IC7001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.3	3.3	3.3	0	0	2.5	0	3.3	3.3	3.3	0	3.3	3.3	3.3	1.6	3.3	0	2.0	0	0
PLAY	3.3	0	3.3	0	0	2.5	0	3.3	2.4	3.3	0	2.5	2.5	0	0	0	0	0	0	0
Ref No.	IC7001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.3	0	0	0	3.2	2.5	0	0	0	0	0	3.3	0	3.3	1.7	0	3.3	0	0	0
PLAY	3.3	0	0	0	3.2	2.5	0	0	0	0	0	3.3	0	3.3	1.7	0	3.3	0	0	1.4
Ref No.	IC7001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	1.6	3.3	3.1	3.3	0	0	0	0	0	0	0	0	0	0	3.3	3.3	3.3	0	0
PLAY	1.3	0	0	0	3.3	0	0	0	1.7	0	1.6	1.6	1.6	1.7	1.7	0	3.3	3.3	0	0
Ref No.	IC7001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	0	0	0	3.3	2.5	3.3	0	3.3	3.3	3.3	1.6	3.3	3.3	0	3.3	0.5	0	3.3	3.3	0.5
PLAY	0	0	0	3.3	2.5	3.3	0	3.3	3.3	3.3	1.6	3.3	3.3	0	3.3	0.5	0	3.3	2.9	0
Ref No.	IC7001																			
MODE	141	142	143	144																
STOP	0	0	3.3	3.3																
PLAY	0	0	0	3.3																

Ref No.	Q3081				Q3082				Q3083				Q3084				Q5201			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	1.3	0	0.6		1.1	0	0.4		0	0	0.4		1.0	0	0.3		4.9	1.4	4.6	
PLAY	1.3	0	0.6		1.1	0	0.4		0	0	0.4		1.2	0	0.5		3.9	2.2	0	

Ref No.	QR2001				QR5201				QR5231				QR6301							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
STOP	0	0	0		0	1.6	0		2.6	0	3.3		0	3.2	0					
PLAY	0	0	3.3		0	1.6	0		2.6	2.5	0		0	3.2	0					

Ref No.	IC2591																				
MODE	1	2	3	4	5	6	7	8	9												
STOP	7.4	0.2	0	0.2	9.0	9.0	0	0	0												
PLAY	7.4	2.8	0	2.8	9.0	9.0	0	0	0												

Ref No.	IC3511																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
STOP	3.2	0.7	1.0	0	0	4.9	0.7	0	0.7	0	0.9	0	0.1	0.1	1.3	0.9	4.9	0.9	0	1.5	
PLAY	3.2	0.9	1.2	0	0	4.9	0.7	0	0.7	0	0	0	0.1	0.1	1.3	0.9	4.9	0.9	0	1.8	

Ref No.	IC3511																				
MODE	21	22	23	24																	
STOP	1.5	4.9	0	0.4																	
PLAY	1.9	0	0.4	0.4																	

Ref No.	IC4321									IC4471											
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8				
STOP	0	0	0	-8.1	0	0	0	8.1		0	0	0	-8.1	0	0	0	8.1				
PLAY	0	0	0	-8.1	0	0	0	8.1		0	0	0	-8.1	0	0	0	8.1				

Ref No.	IC4781				IC4902				IC4911												
MODE	1	2	3		1	2	3		1	2	3										
STOP	1.7	5.1	0		8.1	0	10.1		0	-10.2	-8.1										
PLAY	1.7	5.1	0		8.1	0	10.1		0	-10.2	-8.1										

Ref No.	IC6001																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
STOP	1.5	3.8	4.3	5.1	5.1	5.1	0	5.1	2.4	2.5	0	0	5.1	0	0	5.1	5.1	5.1	1.9	1.9	
PLAY	1.5	3.8	4.3	5.1	0	5.1	0	5.1	2.4	2.5	0	0	5.1	0	0	5.1	5.1	5.1	1.2	1.2	

Ref No.	IC6001																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
STOP	1.8	1.9	1.8	5.1	0	5.1	5.1	0	0	0	0	0	5.1	2.0	1.9	1.3	1.4	1.0	5.1	0	
PLAY	1.2	1.3	1.3	5.1	0	5.1	5.1	0	0	0	0	0	5.1	0.7	0.7	0.7	0.7	0.7	5.1	0	

Ref No.	IC6001																				
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
STOP	1.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.8	4.9	-25.0	-25.0	-25.0	-24.9	-24.9	-24.9	-24.9	-24.9	-24.9	
PLAY	0.8	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-4.8	4.9	-25.1	-25.1	-25.1	-24.9	-24.9	-24.9	-24.9	-24.9	-24.9	

Ref No.	IC6001																				
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
STOP	-24.9	-24.9	-24.9	-24.9	-15.5	-24.6	-24.6	-24.6	-20.0	-20.0	-20.0	-20.1	-22.5	-20.3	-24.9	-24.9	-24.9	-22.5	-15.5	3.8	
PLAY	-24.9	-24.9	-24.9	-24.9	-8.6	-22.4	-20.0	-24.7	-8.7	-8.6	-20.2	-20.2	-9.0	-13.6	-24.9	-24.9	-24.9	-18.1	-11.2	3.7	

Ref No.	IC6001																				
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	
STOP	3.7	3.8	3.8	4.1	3.8	4.4	4.4	4.4	4.5	4.1	4.6	4.6	4.2	4.4	4.5	4.5	4.5	4.4	4.4	-27.1	
PLAY	0	0	3.6	3.9	0	0	0	4.2	4.2	0	4.4	4.5	0	4.3	0	4.3	4.3	4.3	4.3	-27.3	

Ref No.	IC6002				IC6003				IC6004						IC6005						
MODE	1	2	3	4		1	2	3		1	2	3	4	5		1	2	3	4	5	
STOP	0	0	5.1	5.1		5.1	0	5.1		2.8	2.8	0	4.3	5.1		2.5	2.5	0	3.9	5.1	
PLAY	0	0	5.1	5.1		5.1	0	5.1		2.8	2.8	0	4.3	5.1		2.5	2.5	0	3.8	5.1	

Ref No.	Q3501				Q4501				Q4511				Q4521				Q4531			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	0.6	4.9	1.2		0	0	0.7		0	0	0.7		0	0	-4.8		0	0	0.7	
PLAY	0.7	4.9	1.4		0	0	-4.8		0	0	-4.8		0	0	-4.8		0	0	-4.8	

Ref No.	Q6009																			
MODE	E	C	B																	
STOP	-20.2	-20.1	-19.4																	
PLAY	-20.1	-20.1	-19.4																	

Ref No.	QR3521				QR4521				QR4593				QR4594				QR4596			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	0	5.0	0		0	-4.8	0		0	2.9	0.2		2.9	2.8	0		2.9	2.8	0	
PLAY	0	5.0	0		0	-4.8	0		0	0.1	3.8		0.1	-4.8	0		0	-4.8	0	

Ref No.	QR6009																			
MODE	E	C	B																	
STOP	5.1	-2.1	5.1																	
PLAY	5.1	-2.0	5.1																	

Ref No.	IC3801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.2	12.0	4.3	12.0	3.2	5.7	5.7	5.6	0	5.6	0.1	0	0	0	3.8	0	-	-	0	0
PLAY	3.2	12.0	4.3	12.0	3.2	5.7	5.7	5.6	0	5.6	0.1	0	0	0	3.8	0	-	-	0	0

Ref No.	IC3801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34						
STOP	0	0	-	0	0	0	-	0	2.1	2.1	-	3.8	3.8	0						
PLAY	0	0	-	0	0	0	-	0	2.6	2.6	-	3.8	3.8	0						

Ref No.	IC3851																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	0	0	0	0	-5.0	0	0	0	0	0	0	0	0	5.1				
PLAY	0	0	0	0	0	0	-5.0	0	0	0	0	0	0	0	0	5.1				

Ref No.	IC3852																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	0	0	0	0	-5.0	0	0	0	0	0	0	0	0	5.0				
PLAY	0	0	0	0	0	0	-5.0	0	0	0	0	0	0	0	0	5.0				

Ref No.	IC3853																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	0	0	0	0	-5.0	0	0	0	0	0	0	0	0	5.1				
PLAY	0	0	0	0	0	0	-5.0	0	0	0	0	0	0	0	0	5.1				

Ref No.	IC3891																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	3.8	0.7	0	0.7	0	0	0	0	2.8	0	0	0	3.0	2.8	3.0	5.1				
PLAY	3.8	0.7	0	0.7	0	0	0.7	0	2.8	3.0	0	2.8	3.0	2.8	3.0	5.1				

Ref No.	Q3831							Q3832							Q3833					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		E	C	B			
STOP	0	0	5.1	0	0	5.1		0	0	0	0	0	0		0.1	0.1	0.1			
PLAY	0	0	5.1	0	0	5.1		0	0	0	0	0	0		0.1	0.1	0.1			

Ref No.	QR3831																			
MODE	E	C	B																	
STOP	0	4.9	0																	
PLAY	0	4.9	0																	